

Fig. 1.



Fig.2.

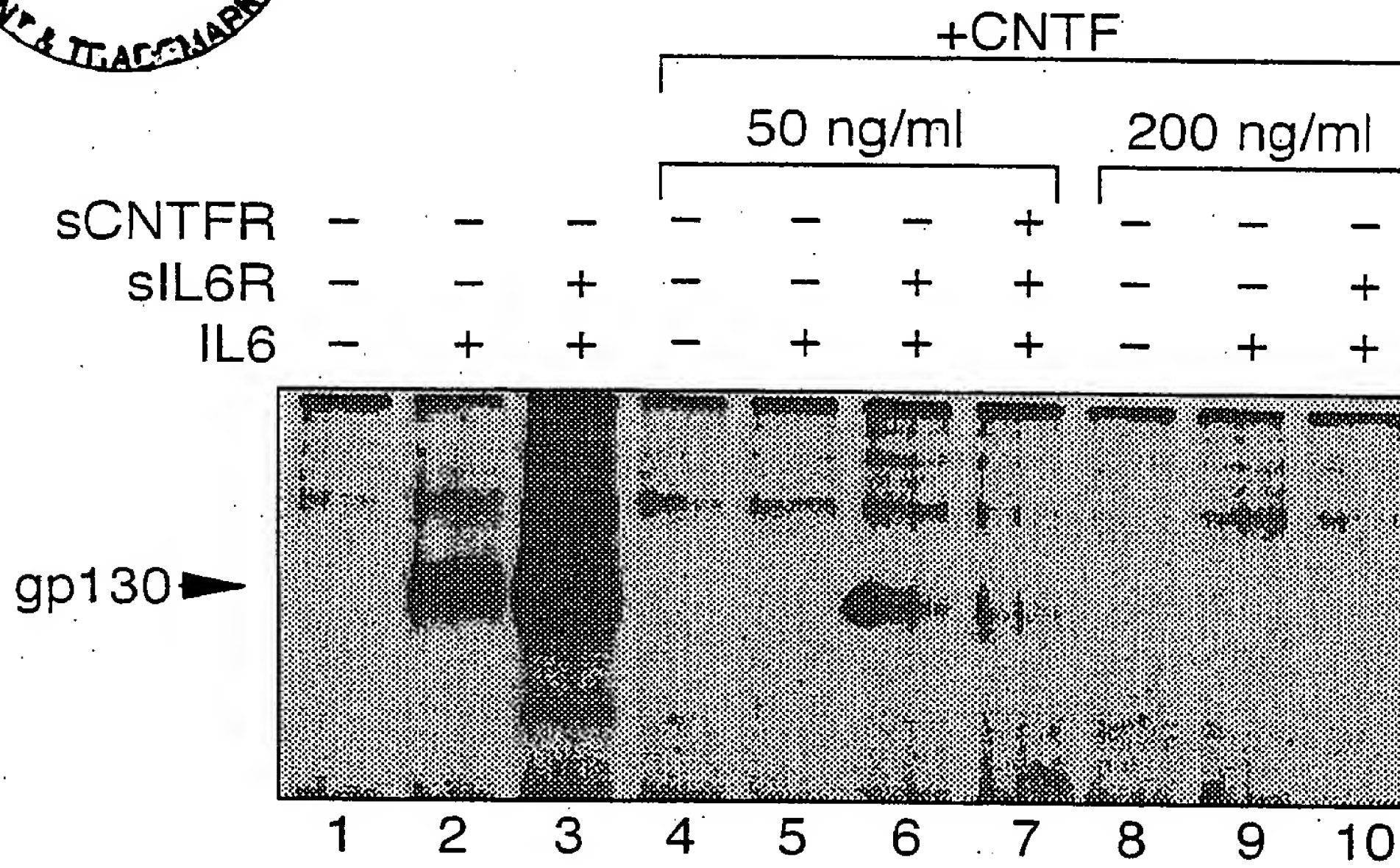
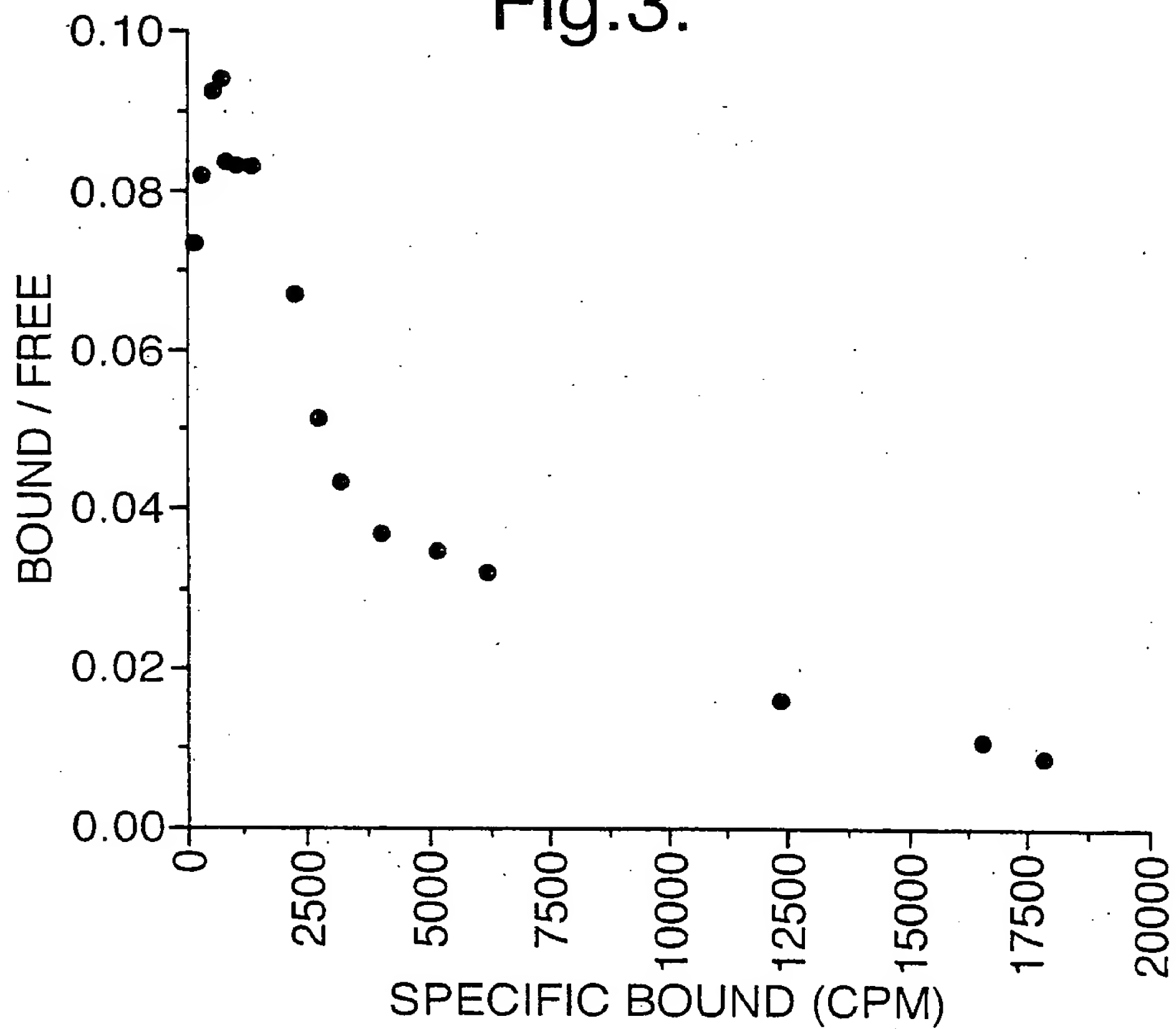


Fig.3.



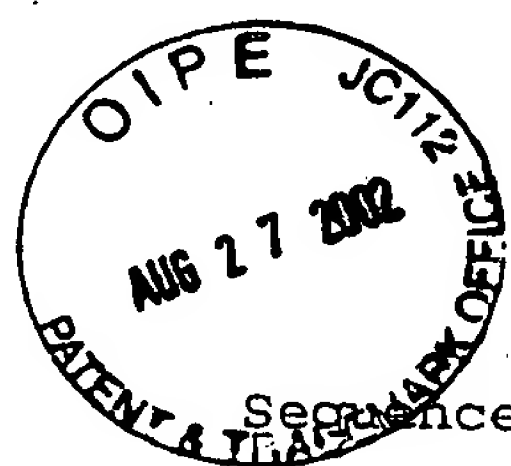


Fig. 4A

Amino acid sequence of human gp130-Fc-His6

Sequence Range: 1 to 861

10	20	30	40	50	60
*	*	*	*	*	*
MVTLQTWVVQALFIFLT	TES	TGELLDP	CGYISP	ESPVVQ	L
HSNFTAV	CVLKEK	CMDY	FHV		
70	80	90	100	110	120
*	*	*	*	*	*
NANYIVWKT	NHFTIPKE	QYT	IINRTASS	VTFTDI	ASLN
LTCN	ILTFGQ	LEQN	VYGIT		
130	140	150	160	170	180
*	*	*	*	*	*
ISGLPPEK	PKNLSC	IVNEGK	KMRCEW	DGGRETH	LETNFTL
KSEWATHK	FADCKA	KRDTPT			
190	200	210	220	230	240
*	*	*	*	*	*
SCTVDYST	VYFVNIE	VWVEA	ENALGK	VTSDHIN	FDPVYKV
KPNPPHN	LSVINSE	ELSSIL			
250	260	270	280	290	300
*	*	*	*	*	*
KLTWTNPS	IKSVIIL	KYNIQ	YRTKDA	STWSQIP	PEDTAST
RSSFTV	QDLKPF	TEYVFR			
310	320	330	340	350	360
*	*	*	*	*	*
CMKEDGK	GYWSDW	SEEASGI	TYEDRP	SKAPSF	WYKIDPSH
TQGYRT	VQLVWK	TLPPFE			
370	380	390	400	410	420
*	*	*	*	*	*
GKILDYEV	TLTRWK	SHLQNY	TVNATK	LTVNLT	NDRYLATL
TVRN	LVGKSD	AAVLTI			
430	440	450	460	470	480
*	*	*	*	*	*
FQATHPV	MDLKAF	PKDNMLW	VEWTT	TPRESV	KKYILEWCVL
SDKAPC	ITDWQQ	EDGTVH			
490	500	510	520	530	540
*	*	*	*	*	*
YLRGNLA	ESKCYL	ITVTPVY	ADGPGS	PESIKAY	LKQAPPS
KGPTV	RTKKV	GKNEAV			
550	560	570	580	590	600
*	*	*	*	*	*
QLPVDV	QNGFIR	NYTIFYRT	IIGNET	AVNVDSS	HTEYTLS
SLTSDT	LYMVR	MAAYT			
610	620	630	640	650	660
*	*	*	*	*	*
KDGPEFT	FTTPKF	AQGEIES	GEPKSC	DKTHTC	PPCPAPEL
LGGPSV	FLFPPK	PKDTLM			
670	680	690	700	710	720
*	*	*	*	*	*
RTPEVTC	VVDVSH	EDPEVK	FNWYVD	GVEVHN	AKTKPREE
OYNSTY	RVVSVL	TVLHOD			
730	740	750	760	770	780
*	*	*	*	*	*

Fig. 4B

NGKEYKCKVSNKALPAPIEK TISKAKGOPREPOVYTLPPS RDELTKNOVSLTCLVKGFYP
790 800 810 820 830 840
* * * * *
SDIAVEWESNGOPENNYKTT PPVLDSGDSFFLYSKLTVDK SRWOOGNVFSCSVMHEALHN
850 860
* *
HYTOKSLSLSPGKHHHHH•

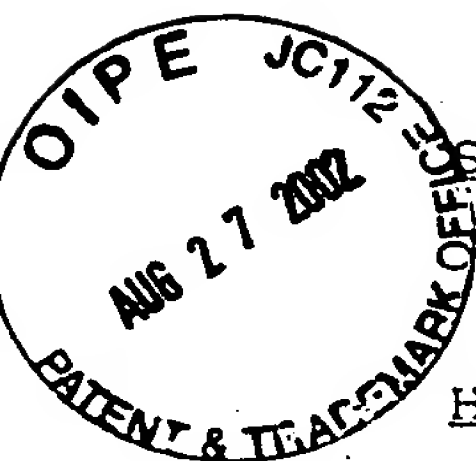


Fig.5.

The amino acid sequence of human IL-6R α -Fc

Sequence Range: 1 to 594

10 20 30 40 50 60
* * * * *
MVAVGCALLAALLAAPGAAL APRRCPAQEVARGVLTSLPG DSVTLTCPGVEPEDNATVHW
70 80 90 100 110 120
* * * * *
VLRKPAAGSHPSRWAGMGRR LLLRSVQLHDSGNYSYRAG RPAGTVHLLVDVPPEEPQLS
130 140 150 160 170 180
* * * * *
CFRKSPLSNVVCEWGPRSTP SLTTKAVLLVRKFQNSPAED FQEPCCQYSQESQKFSCQLAV
190 200 210 220 230 240
* * * * *
PEGDSSFYIVSMCVASSVGS KFSKTQTFQCGILQPDPPA NITVTAVARNPRWLSVTWQD
250 260 270 280 290 300
* * * * *
PHSWNSSFYRLRFELRYRAE RSKTFTTWMVKDLQHHCVIH DAWGSLRHVVQLRAQEEFGQ
310 320 330 340 350 360
* * * * *
GEWSEWSPEAMGTPWTESRS PPAENEVSTPMQALTTNKDD DNILFRDSANATSLPVQDAG
370 380 390 400 410 420
* * * * *
EPKSCDKTHTCPPCPAPELL GGPSVFLFPPKPKDTLMISR TPEVTCVVVDVSHEDPEVKF
430 440 450 460 470 480
* * * * *
NWKVDGVEVHNAKTKPREEO YNSTYRVVSVLTVLHODWLN GKEYKCKVSNKALPAPIEKT
490 500 510 520 530 540
* * * * *
ISKAKGOPREPOVYTLPPSR DELTKNOVSLTCLVKGFYPS DIAVEWESNGOPENNYKTT
550 560 570 580 590
* * * * *
PVLDSGDSFFLYSKLTVDKS RWOOGNVFSCSVMHEALHNH YTOKSLSLSPGK•

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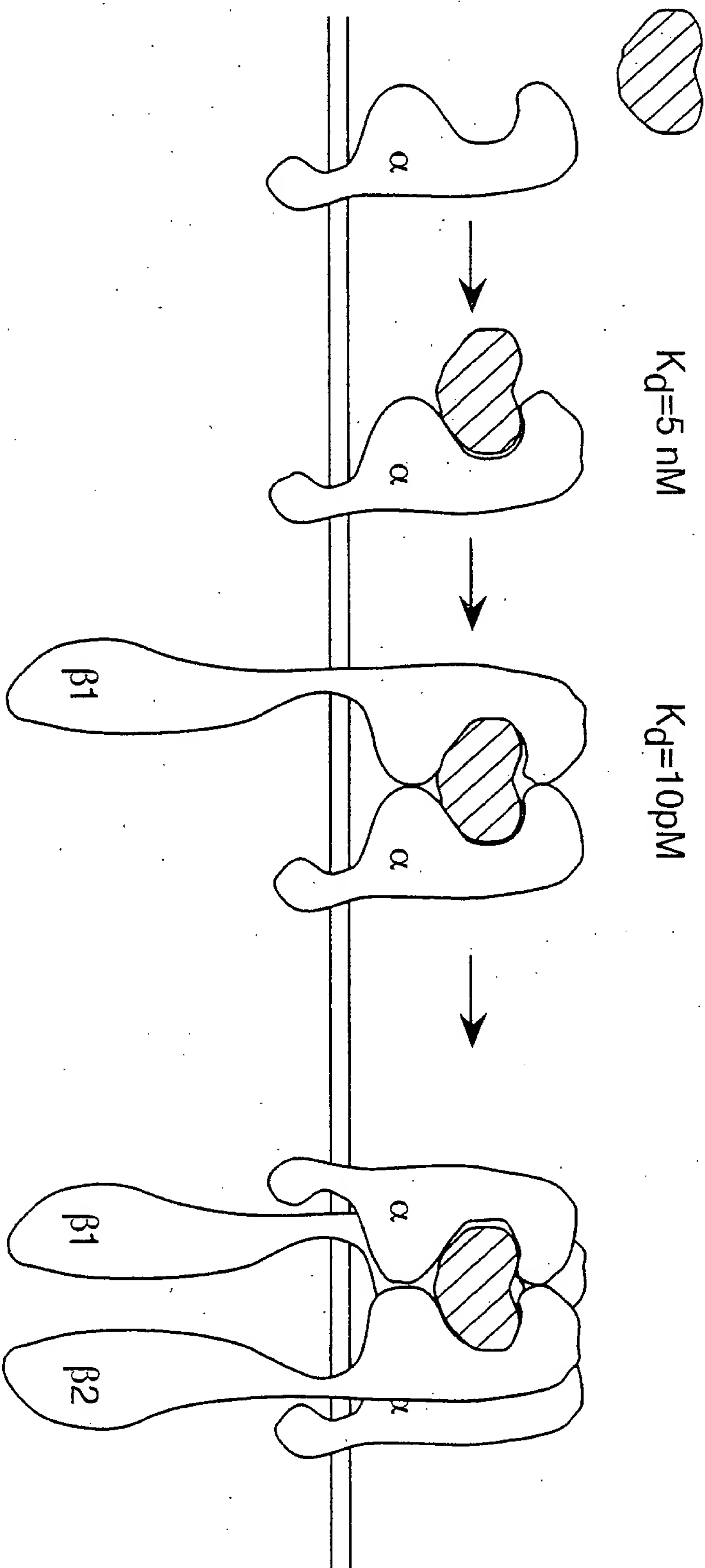
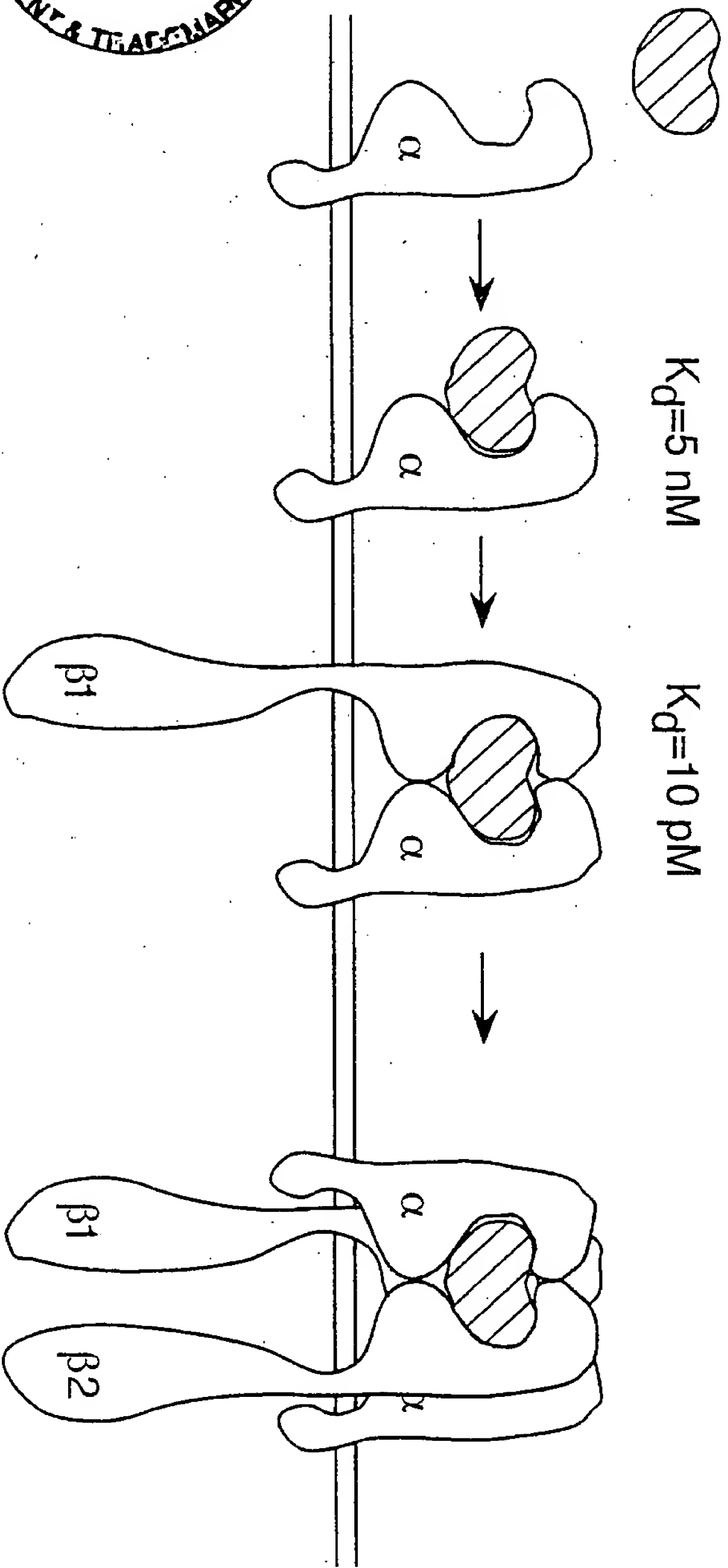
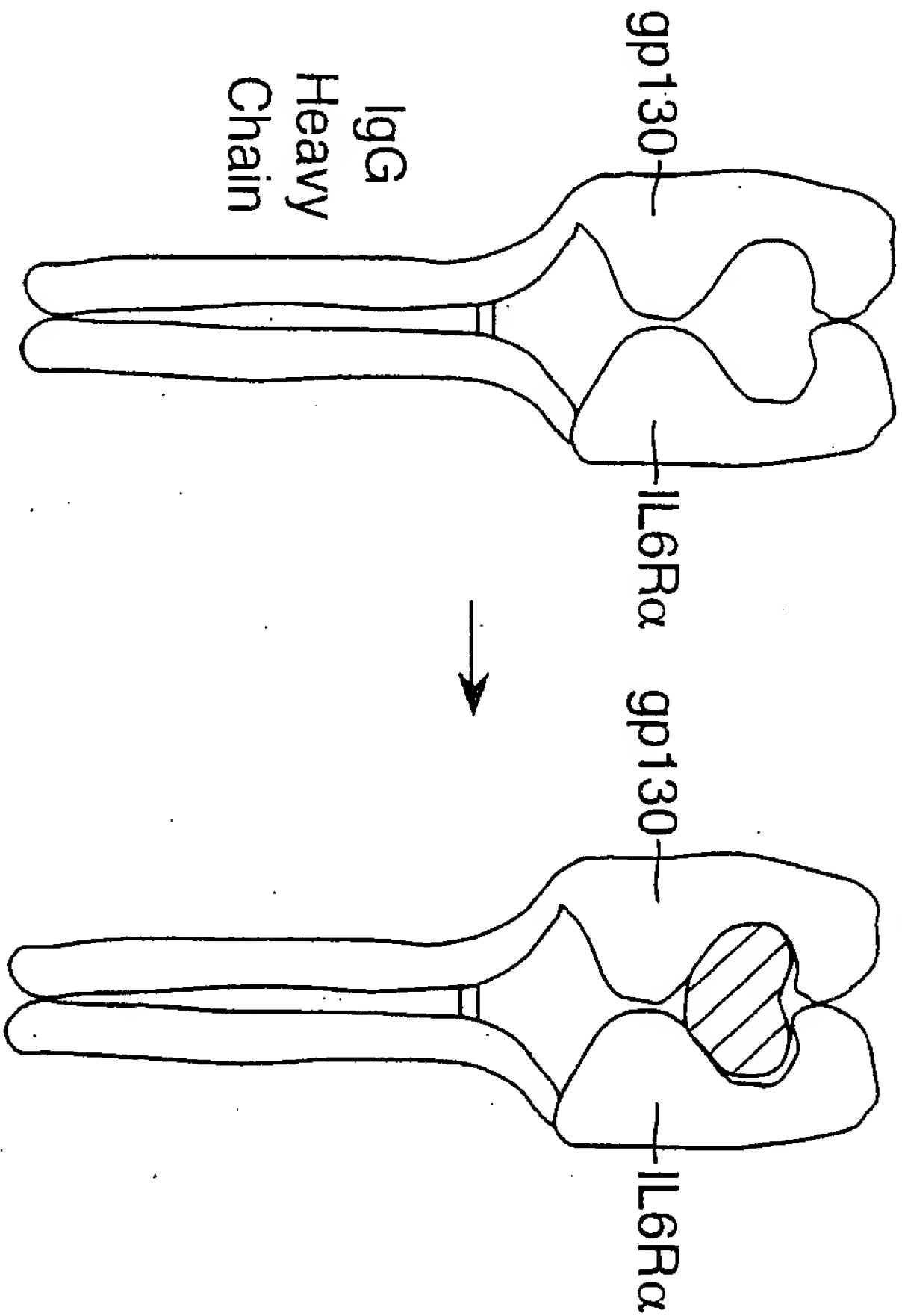


Fig. 6.



Fig. 7.

Heterodimeric Receptor- Based ligand trap



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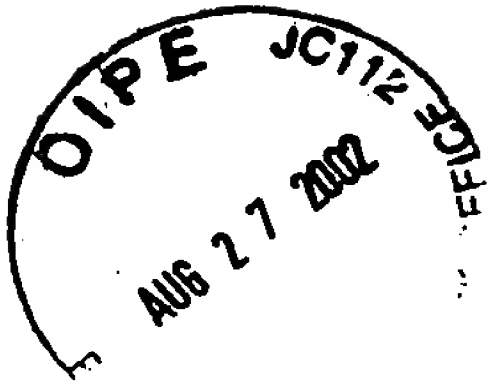


Fig.8.

Immunoglobulin Heavy/Light Chain receptor Fusions

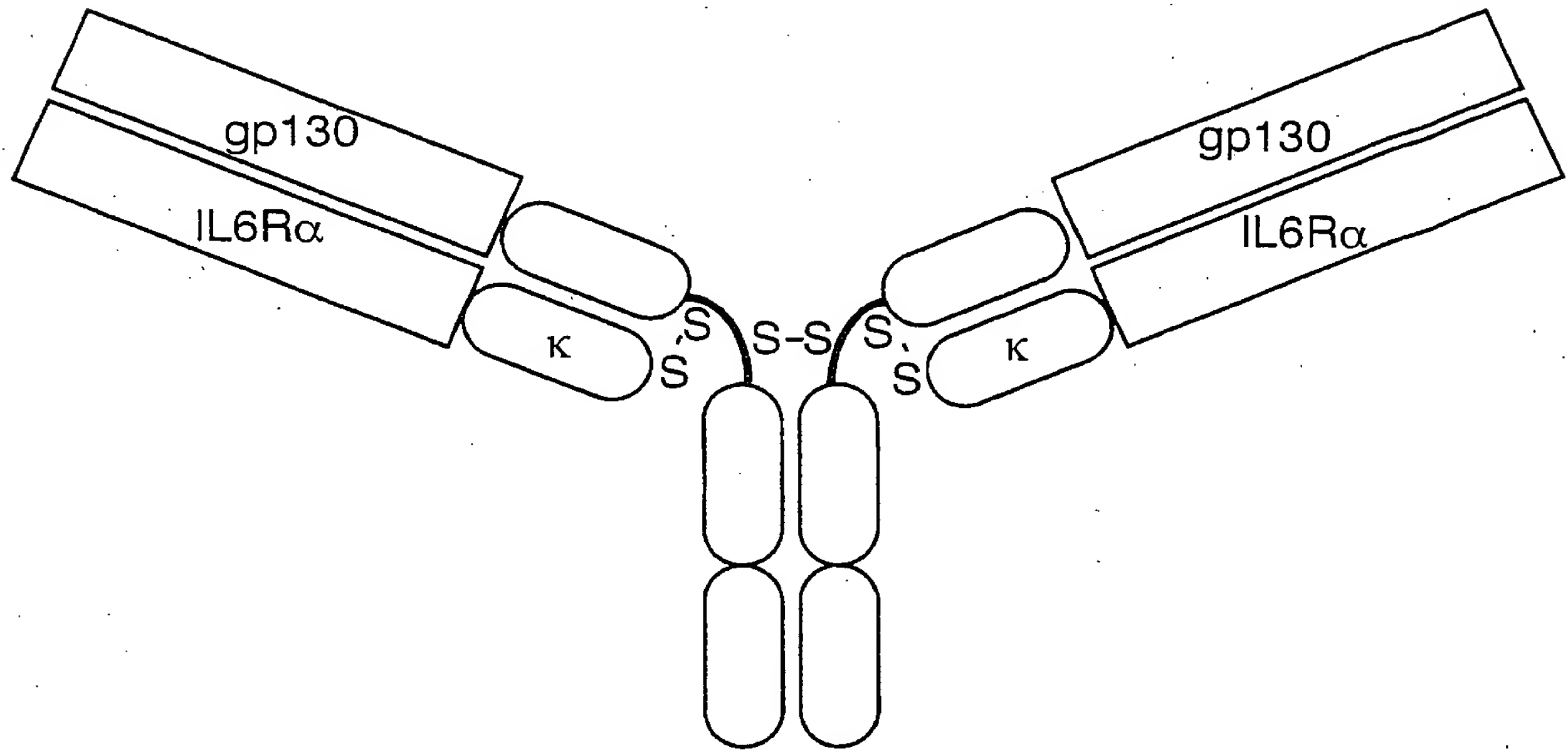


Fig. 9A

Amino acid sequence of gp130-Cyl

Sequence Range: 1 to 952

10 20 30 40 50 60
* * * * *
MVTLQTWVQALFIFLTES TGELLDPCGYISPESPVVQL HSNFTAVCVLKEKCMDYFHV

70 80 90 100 110 120
* * * * *
NANYIVWKTNHFTIPKEQYT IINRTASSVTFTDIASLNIQ LTCNILTFGQLEQNVYGITI

130 140 150 160 170 180
* * * * *
ISGLPPEKPKNLSCIVNEGK KMRCEWDGGRETHLETNFTL KSEWATHKFADCKAKRDTPT

190 200 210 220 230 240
* * * * *
SCTVDYSTVYFVNIEVWVEA ENALGKVTS DHINFDPVYKV KPNPPHNLSVINSEELSSIL

250 260 270 280 290 300
* * * * *
KLTWTNPSIKSVIILKYNIQ YRTKDASTWSQIPPEDTAST RSSFTVQDLKPFTEYVFRIR

310 320 330 340 350 360
* * * * *
CMKEDGKGYWSDWSEEASGI TYEDRPSKAPSFYWKIDPSH TQGYRTVQLVWKTLPPEAN

370 380 390 400 410 420
* * * * *
GKILDYEVTLTRWKSHLQNY TVNATKLTVNLTNDRYLATL TVRNLVGKSDAAVLTI PACD

430 440 450 460 470 480
* * * * *
FQATHPVMDLKAFFPKDNMLW VEWTPRESVKKYILEWCVL SDKAPCITDWQQEDGTVHRT

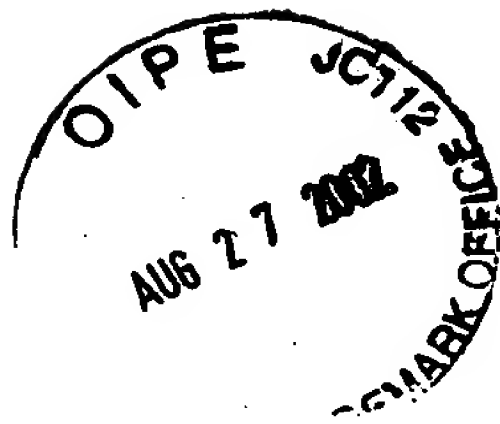
490 500 510 520 530 540
* * * * *
YLRGNLAESKCYLITVTPVY ADGPGSPESIKAYLKQAPPS KGPTVVRTKKVGKNEAVLEWD

550 560 570 580 590 600
* * * * *
QLPVDVQNGFIRNYTIFYRT IIGNETAVNVDSSTHEYTLS SLTSDTLYMVRMAAYTDEGG

610 620 630 640 650 660
* * * * *
KDGPEFTFTTPKFAQGEIES GASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPVTV

670 680 690 700 710 720
* * * * *
SWNSGALTSGVHTFPAVLOS SGLYSLSSVVTVPSSSLGTO TYICNVNHKPSNTKVDKKVE

730 740 750 760 770 780
* * * * *
PKSCDKTHTCPPCPAPELLG GPSVFLFPPKPKDTLMISRT PEVTCVVVDVSHEDP EVKEN



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Fig. 9B

790	800	810	820	830	840
*	*	*	*	*	*
<u>WYVDGVEVHNAKTKPREEOY NSTYRVVSVLTVLHODWLNG KEYKCKVSNKALPAPIEKTI</u>					
850	860	870	880	890	900
*	*	*	*	*	*
<u>SKAKGOPREPOVYTLPPSRD ELTKNOVSLTCLVKGFYPSD IAVEWESNGOPENNYKTTPP</u>					
910	920	930	940	950	
*	*	*	*	*	
<u>VLDSDGSFFLYSKLTVDKSR WOOGNVFSCSVMHEALHNHY TOKSLSLSPGK*</u>					

Fig.10.

Amino acid sequence of gp130Δ3fibro

Sequence Range: 1 to 332

10	20	30	40	50	60
*	*	*	*	*	*
MVTLQTWVVQALFIFLTES TGELLDPCGYISPESPVVQL HSNFTAVCVLKEKCMDYFHV					
70	80	90	100	110	120
*	*	*	*	*	*
NANYIVWKTNHFTIPKEQYT IINRTASSVTFTDIASLNIQ LTCNILTFGQLEQNVYGITI					
130	140	150	160	170	180
*	*	*	*	*	*
ISGLPPEKPKNLSCIVNEGK KMRCEWDGGRETHLETNFTL KSEWATHKFADCKAKRDTPT					
190	200	210	220	230	240
*	*	*	*	*	*
SCTVDYSTVYFVNIEVWVEA ENALGKVTS DHINFDPVYKV KPNPPHNLSVINSEELSSIL					
250	260	270	280	290	300
*	*	*	*	*	*
KLTWTNPSIKSVIILKYNIQ YRTKDASTWSQIPPEDTAST RSSFTVQDLKPFTEYVFRIR					
310	320	330			
*	*	*			
CMKEDGKGYWSDWSEEASGI TYEDRPSKAPSG					



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Fig.11.

Amino acid sequence of J-CH1

Sequence Range: 1 to 121

10	20	30	40	50	60
*	*	*	*	*	*
SGGQGT LVTVSSASTKGPSV FPLAPSSKSTSGGTAALGCL VKDYFPEPVT VS WNSGALTS					
70	80	90	100	110	120
*	*	*	*	*	*
GVHTFPAVLOSSGLYSLSSV VTPSSSLGTOTYICNVNHK PSNTKVDKKVEPKSCDKTHT*					

Fig.12.

Amino acid sequence of Cy4

Sequence Range: 1 to 330

10	20	30	40	50	60
*	*	*	*	*	*
SGASTKGPSVFPLAPCSRST SESTAALGCLVKDYFPEPVT VSWNSGALTSGVHTFPAVLQ					
70	80	90	100	110	120
*	*	*	*	*	*
SSGLYSLSSVVTVPSSSLGT KTYTCNV DH KPSNTKVDKRV ESKYGPPCPSCPAPEFLGGP					
130	140	150	160	170	180
*	*	*	*	*	*
SVFLFPPKPKDTLMISRTPE VTCVVVDVSQEDPEVQFNWY VDGVEVHNAKTKPREEQFNS					
190	200	210	220	230	240
*	*	*	*	*	*
TYRVVSVLTVLHQDWLNGKE YKCKVSNKGLPSSIEKTISK AKGQPREPQVYTLPPSQEEM					
250	260	270	280	290	300
*	*	*	*	*	*
TKNQVSLTCLVKGFYPSDIA VEWESNGQPENNYKTTPPVL DSDGSFFLYSRLTVDKSRWQ					
310	320	330			
*	*	*			
EGNVFSCSVMEALHNHYTQ KSLSLSLGK*					



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Fig.13.

Amino acid sequence of κ -domain

Sequence Range: 1 to 108

10	20	30	40	50	60
*	*	*	*	*	*
SGTVAAPSVFIFPPSDEQLK SGTASVVCLLNNFYPREAKV QWKVDNALQSGNSQESVTEQ					
70	80	90	100		
*	*	*	*		
DSKDSTYSLSSTLTLSKADY EKHKVYACEVTHQGLSSPVT KSFNRGEC*					

Fig.14.

Amino acid sequence of λ -domain:

Sequence Range: 1 to 107

10	20	30	40	50	60
*	*	*	*	*	*
SGPKAAPSVTLFPPSSEELQ ANKATLVCLISDFYPGAVTV AWKADSSPVKAGVETTTPSK					
70	80	90	100		
*	*	*	*		
QSNNKYAASSYLSLTPEQWK SHRSYSCQVTHEGSTVEKTV APTECS*					



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Fig.15.

Amino acid sequence of the soluble IL-6R α domain

Sequence Range: 1 to 360

10	20	30	40	50	60
*	*	*	*	*	*
MVAVGCALLAALLAAPGAAL	APRRCPAQEVARGVLTSLPG	DSVTLTCPGVEPEDNATVHW			
70	80	90	100	110	120
*	*	*	*	*	*
VLRKPAAGSHPSRWAGMGRR	LLLRSVQLHDSGNYSYRAG	RPAGTVHLLVDVPPEEPQLS			
130	140	150	160	170	180
*	*	*	*	*	*
CFRKSPLSNVVCEWGPRSTP	SLTTKAVLLVRKFQNSPAED	FQEPQYSQESQKFSCQLAV			
190	200	210	220	230	240
*	*	*	*	*	*
PEGDSSFYIVSMCVASSVGS	KFSKTQTFQCGILQPDPPA	NITVTAVARNPRWLSVTWQD			
250	260	270	280	290	300
*	*	*	*	*	*
PHSWNSSFYRLRFELRYRAE	RSKTFTTWMVKDLQHHCVIH	DAWSGLRHVVQLRAQE EFGQ			
310	320	330	340	350	360
*	*	*	*	*	*
GEWSEWSPEAMGTPWTESRS	PPAENEVSTPMQALT TNKDD	DNILFRDSANATSLPVQDAG			

Fig.16.

Amino acid sequence of the soluble IL-6k α 313 domain

Sequence Range: 1 to 315

10	20	30	40	50	60
*	*	*	*	*	*
MVAVGCALLAALLAAPGAAL	APRRCPAQEVARGVLTSLPG	DSVTLTCPGVEPEDNATVHW			
70	80	90	100	110	120
*	*	*	*	*	*
VLRKPAAGSHPSRWAGMGRR	LLLRSVQLHDSGNYSYRAG	RPAGTVHLLVDVPPEEPQLS			
130	140	150	160	170	180
*	*	*	*	*	*
CFRKSPLSNVVCEWGPRSTP	SLTTKAVLLVRKFQNSPAED	FQEPQYSQESQKFSCQLAV			
190	200	210	220	230	240
*	*	*	*	*	*
PEGDSSFYIVSMCVASSVGS	KFSKTQTFQCGILQPDPPA	NITVTAVARNPRWLSVTWQD			
250	260	270	280	290	300
*	*	*	*	*	*
PHSWNSSFYRLRFELRYRAE	RSKTFTTWMVKDLQHHCVIH	DAWSGLRHVVQLRAQE EFGQ			
310					
*					
GEWSEWSPEAMGTTG					



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Fig.17.

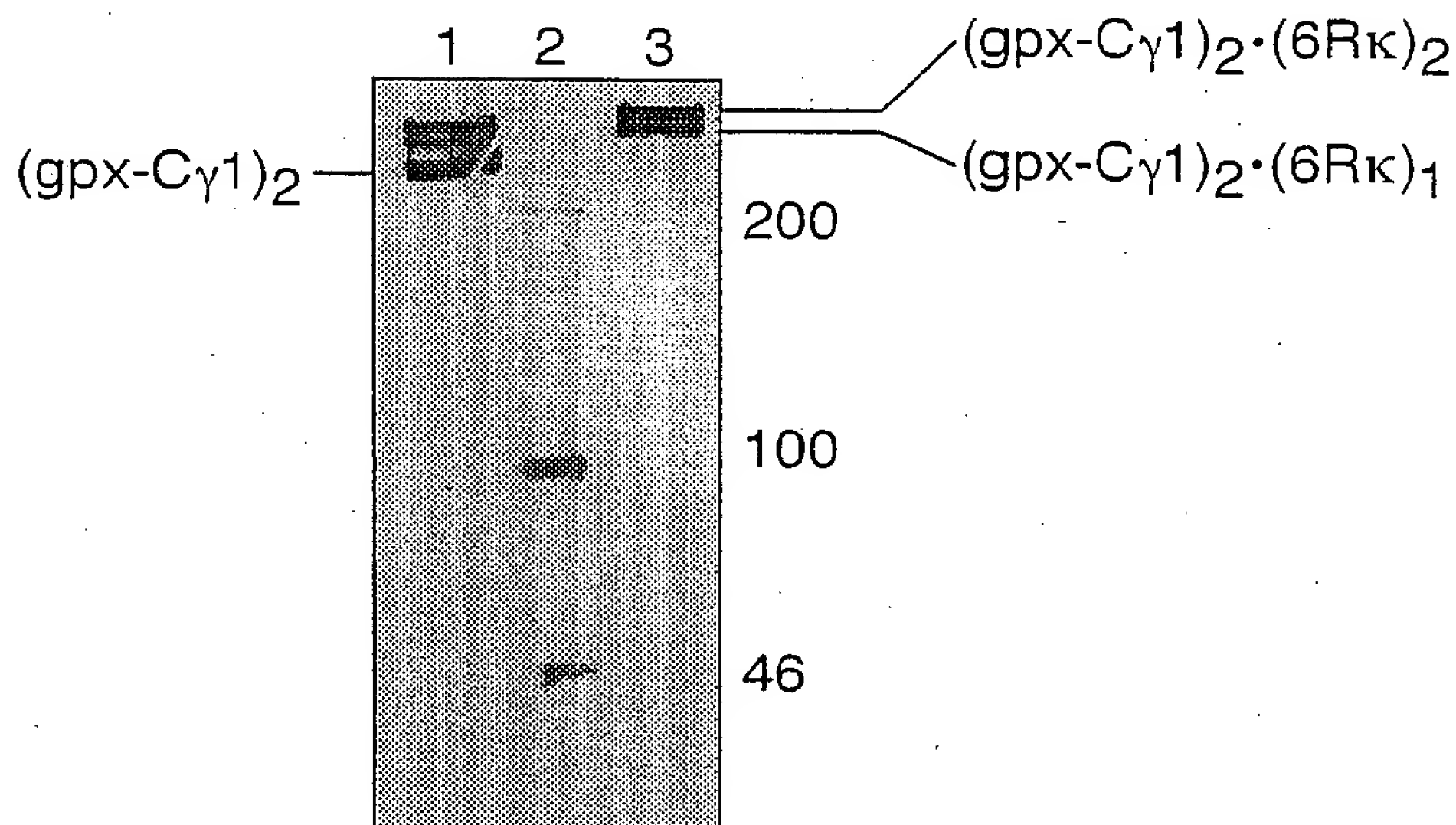
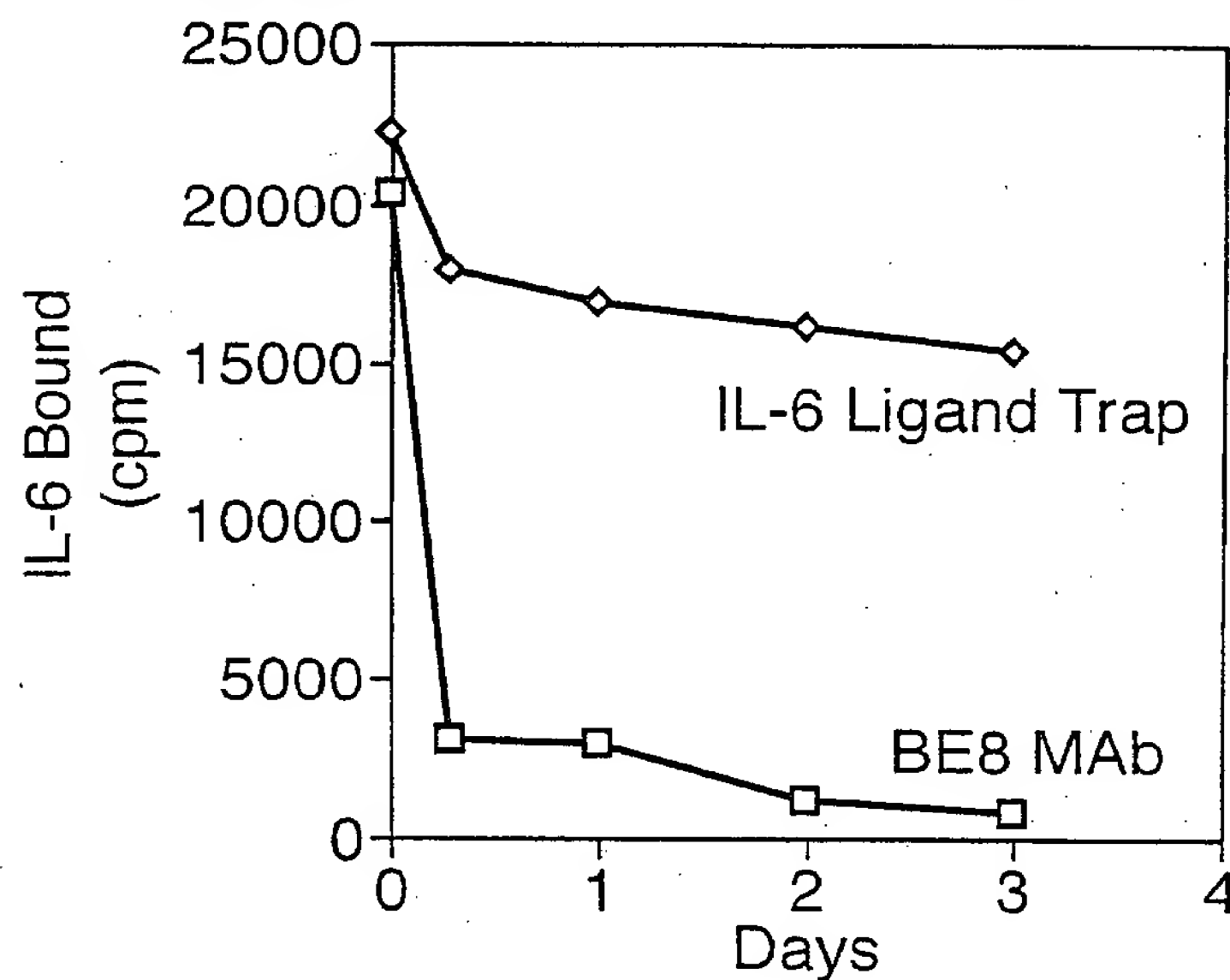
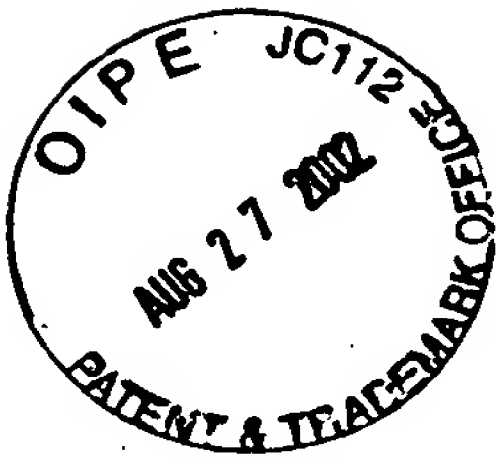


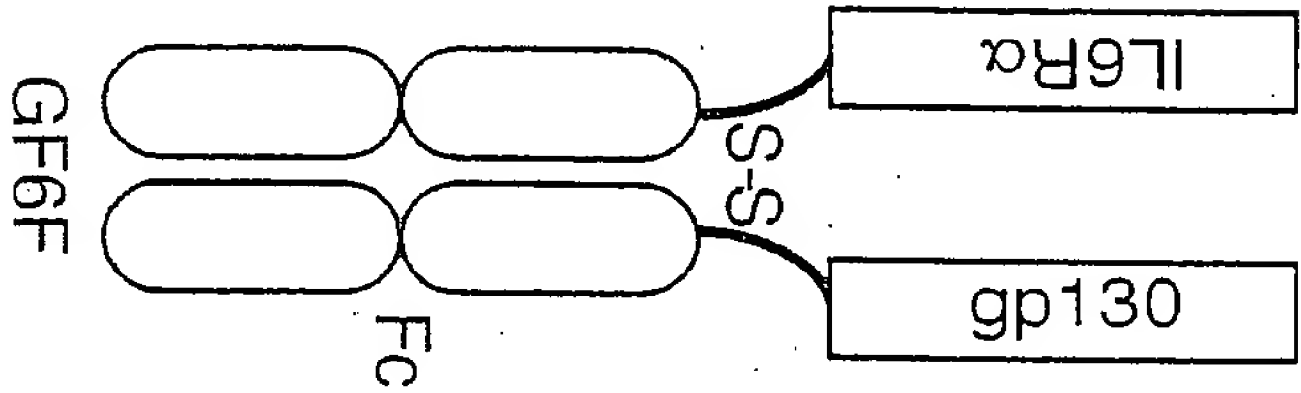
Fig.18.

IL-6 Dissociates Slowly from the Ligand Trap

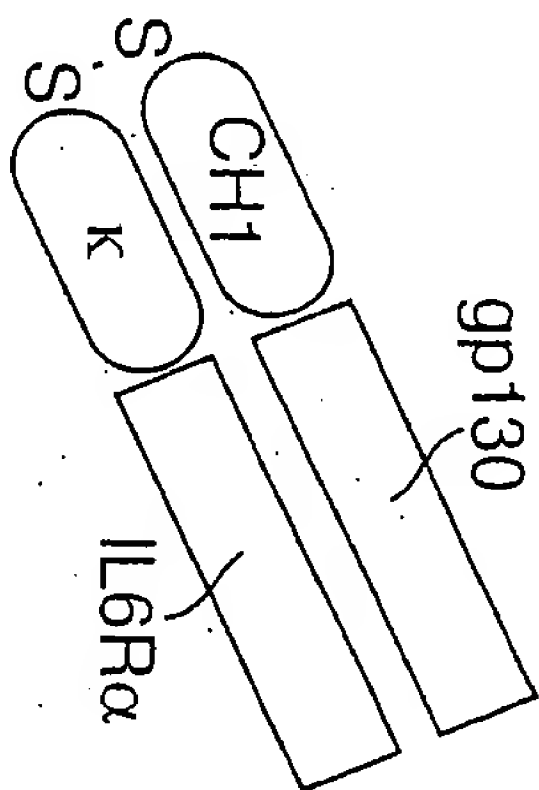




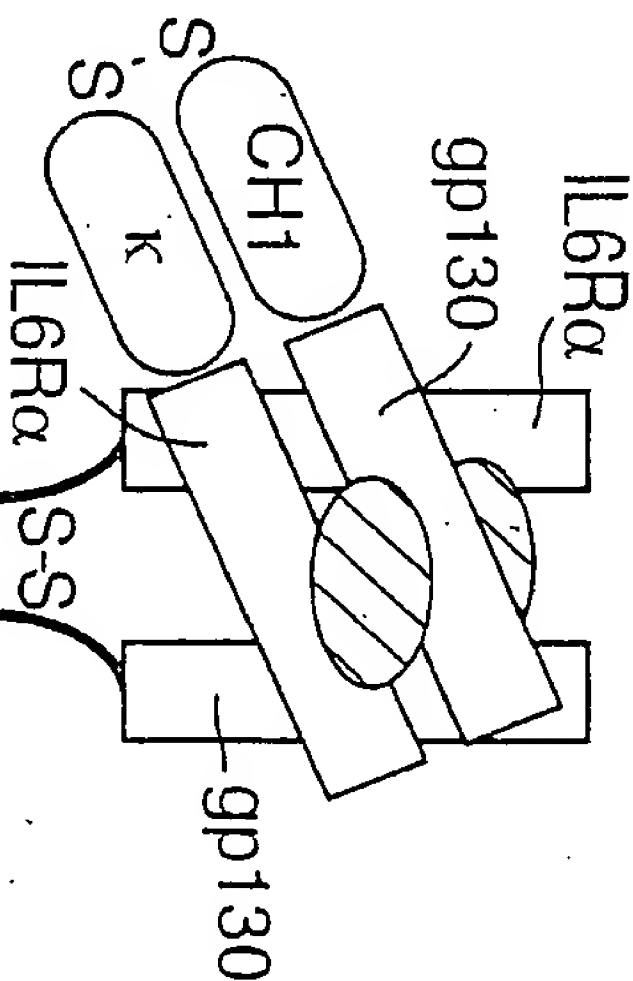
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Protein A binding



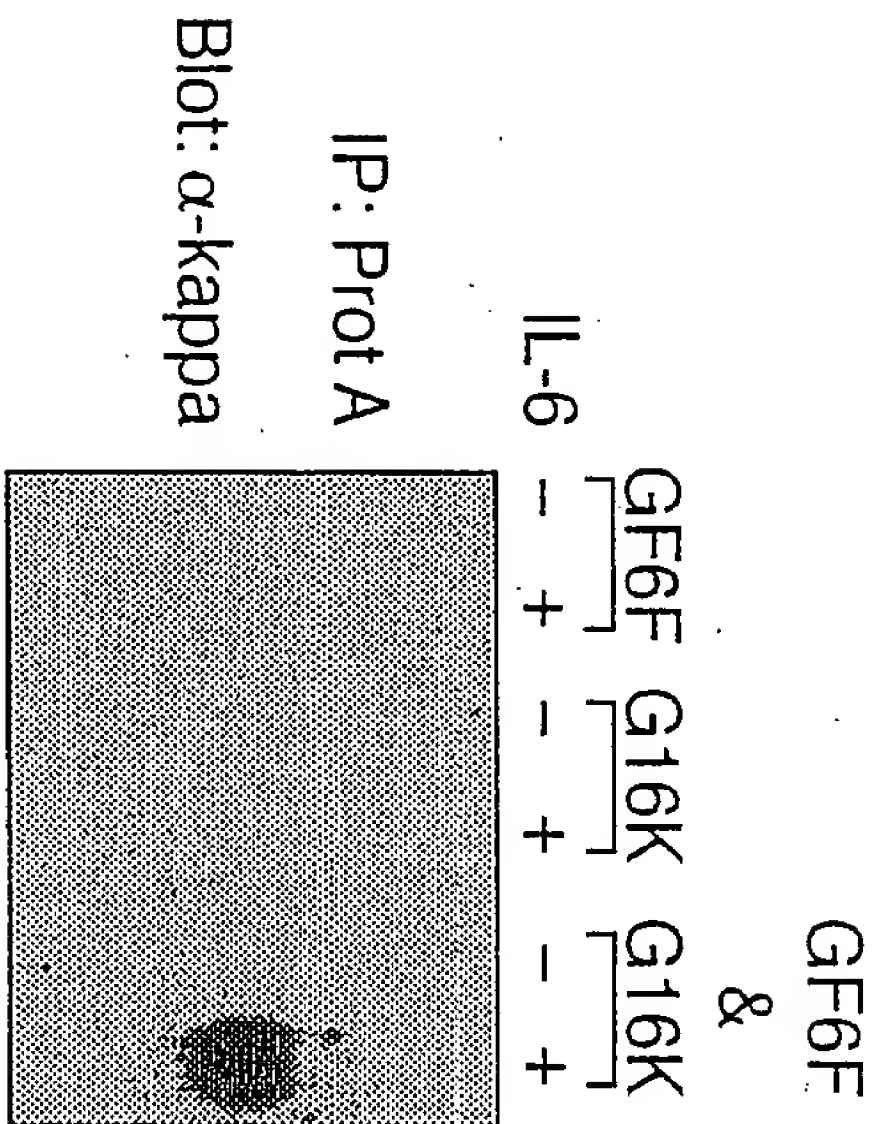
No Protein A binding



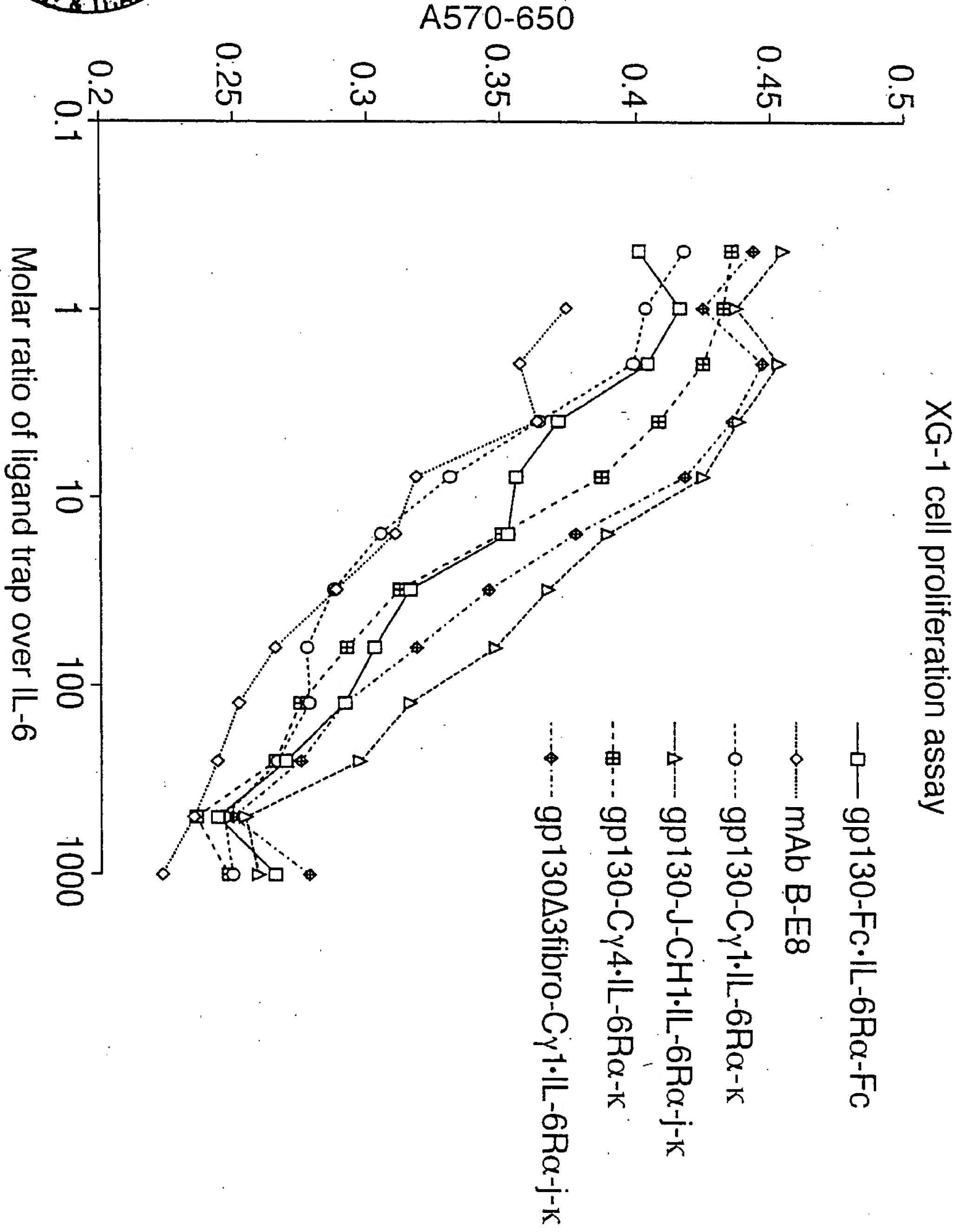
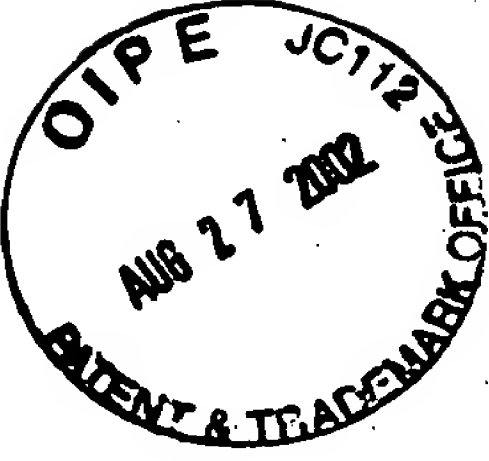
Does IL-6 Induce Complex Formation ?

Fig. 19A

Fig. 19B



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Fig.21A.

10 20 30 40
* * * * *
ATG GTG AAG CCA TCA TTA CCA TTC ACA TCC CTC TTA TTC CTG CAG CTG
Met Val Lys Pro Ser Leu Pro Phe Thr Ser Leu Leu Phe Leu Gln Leu>
60 70 80 90
* * * * *
CCC CTG CTG GGA GTG GGG CTG AAC ACG ACA ATT CTG ACG CCC AAT GGG
Pro Leu Leu Gly Val Gly Leu Asn Thr Thr Ile Leu Thr Pro Asn Gly>
100 110 120 130 140
* * * * *
AAT GAA GAC ACC ACA GCT GAT TTC TTC CTG ACC ACT ATG CCC ACT GAC
Asn Glu Asp Thr Thr Ala Asp Phe Phe Leu Thr Thr Met Pro Thr Asp>
150 160 170 180 190
* * * * *
TCC CTC AGT GTT TCC ACT CTG CCC CTC CCA GAG GTT CAG TGT TTT GTG
Ser Leu Ser Val Ser Thr Leu Pro Leu Pro Glu Val Gln Cys Phe Val>
200 210 220 230 240
* * * * *
TTC AAT GTC GAG TAC ATG AAT TGC ACT TGG AAC AGC AGC TCT GAG CCC
Phe Asn Val Glu Tyr Met Asn Cys Thr Trp Asn Ser Ser Ser Glu Pro>
250 260 270 280
* * * * *
CAG CCT ACC AAC CTC ACT CTG CAT TAT TGG TAC AAG AAC TCG GAT AAT
Gln Pro Thr Asn Leu Thr Leu His Tyr Trp Tyr Lys Asn Ser Asp Asn>
290 300 310 320 330
* * * * *
GAT AAA GTC CAG AAG TGC AGC CAC TAT CTA TTC TCT GAA GAA ATC ACT
Asp Lys Val Gln Lys Cys Ser His Tyr Leu Phe Ser Glu Glu Ile Thr>
340 350 360 370 380
* * * * *
TCT GGC TGT CAG TTG CAA AAA AAG GAG ATC CAC CTC TAC CAA ACA TTT
Ser Gly Cys Gln Leu Gln Lys Lys Glu Ile His Leu Tyr Gln Thr Phe>
390 400 410 420 430
* * * * *
GTT GTT CAG CTC CAG GAC CCA CGG GAA CCC AGG AGA CAG GCC ACA CAG
Val Val Gln Leu Gln Asp Pro Arg Glu Pro Arg Arg Gln Ala Thr Gln>
440 450 460 470 480
* * * * *
ATG CTA AAA CTG CAG AAT CTG GTG ATC CCC TGG GCT CCA GAG AAC CTA
Met Leu Lys Leu Gln Asn Leu Val Ile Pro Trp Ala Pro Glu Asn Leu>
490 500 510 520
* * * * *
ACA CTT CAC AAA CTG AGT GAA TCC CAG CTA GAA CTG AAC TGG AAC AAC
Thr Leu His Lys Leu Ser Glu Ser Gln Leu Glu Leu Asn Trp Asn Asn>
530 540 550 560 570
* * * * *
AGA TTC TTG AAC CAC TGT TTG GAG CAC TTG GTG CAG TAC CGG ACT GAC
Arg Phe Leu Asn His Cys Leu Glu His Leu Val Gln Tyr Arg Thr Asp>

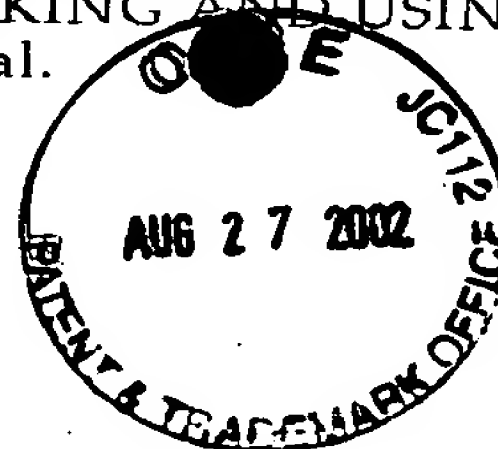


Fig.21B.

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580	590	600	610	620
* * * * *				
TGG GAC CAC AGC TGG ACT GAA CAA TCA GTG GAT TAT AGA CAT AAG TTC				
Trp Asp His Ser Trp Thr Glu Gln Ser Val Asp Tyr Arg His Lys Phe>				
630	640	650	660	670
* * * * *				
TCC TTG CCT AGT GTG GAT GGG CAG AAA CGC TAC ACG TTT CGT GTT CGG				
Ser Leu Pro Ser Val Asp Gly Gln Lys Arg Tyr Thr Phe Arg Val Arg>				
680	690	700	710	720
* * * * *				
AGC CGC TTT AAC CCA CTC TGT GGA AGT GCT CAG CAT TGG AGT GAA TGG				
Ser Arg Phe Asn Pro Leu Cys Gly Ser Ala Gln His Trp Ser Glu Trp>				
730	740	750	760	
* * * * *				
AGC CAC CCA ATC CAC TGG GGG AGC AAT ACT TCA AAA GAG AAC GCG TCG				
Ser His Pro Ile His Trp Gly Ser Asn Thr Ser Lys Glu Asn Ala Ser>				
770	780	790	800	810
* * * * *				
TCT GGG AAC ATG AAG GTC CTG CAG GAG CCC ACC TGC GTC TCC GAC TAC				
Ser Gly Asn Met Lys Val Leu Gln Glu Pro Thr Cys Val Ser Asp Tyr>				
820	830	840	850	860
* * * * *				
ATG AGC ATC TCT ACT TGC GAG TGG AAG ATG AAT GGT CCC ACC AAT TGC				
Met Ser Ile Ser Thr Cys Glu Trp Lys Met Asn Gly Pro Thr Asn Cys>				
870	880	890	900	910
* * * * *				
AGC ACC GAG CTC CGC CTG TTG TAC CAG CTG GTT TTT CTG CTC TCC GAA				
Ser Thr Glu Leu Arg Leu Leu Tyr Gln Leu Val Phe Leu Leu Ser Glu>				
920	930	940	950	960
* * * * *				
GCC CAC ACG TGT ATC CCT GAG AAC AAC GGA GGC GCG GGG TGC GTG TGC				
Ala His Thr Cys Ile Pro Glu Asn Asn Gly Gly Ala Gly Cys Val Cys>				
970	980	990	1000	
* * * * *				
CAC CTG CTC ATG GAT GAC GTG GTC AGT GCG GAT AAC TAT ACA CTG GAC				
His Leu Leu Met Asp Asp Val Val Ser Ala Asp Asn Tyr Thr Leu Asp>				
1010	1020	1030	1040	1050
* * * * *				
CTG TGG GCT GGG CAG CAG CTG CTG TGG AAG GGC TCC TTC AAG CCC AGC				
Leu Trp Ala Gly Gln Gln Leu Leu Trp Lys Gly Ser Phe Lys Pro Ser>				
1060	1070	1080	1090	1100
* * * * *				
GAG CAT GTG AAA CCC AGG GCC CCA GGA AAC CTG ACA GTT CAC ACC AAT				
Glu His Val Lys Pro Arg Ala Pro Gly Asn Leu Thr Val His Thr Asn>				
1110	1120	1130	1140	1150
* * * * *				
GTC TCC GAC ACT CTG CTG CTG ACC TGG AGC AAC CCG TAT CCC CCT GAC				
Val Ser Asp Thr Leu Leu Leu Thr Trp Ser Asn Pro Tyr Pro Pro Asp>				
1160	1170	1180	1190	1200
* * * * *				



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Fig.21C.

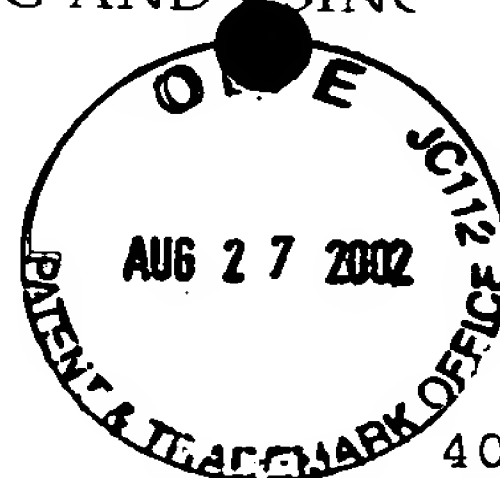
AAT	TAC	CTG	TAT	AAT	CAT	CTC	ACC	TAT	GCA	GTC	AAC	ATT	TGG	AGT	GAA
Asn	Tyr	Leu	Tyr	Asn	His	Leu	Thr	Tyr	Ala	Val	Asn	Ile	Trp	Ser	Glu>
1210		1220		1230		1240									
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAC	GAC	CCG	GCA	GAT	TTC	AGA	ATC	TAT	AAC	GTG	ACC	TAC	CTA	GAA	CCC
Asn	Asp	Pro	Ala	Asp	Phe	Arg	Ile	Tyr	Asn	Val	Thr	Tyr	Leu	Glu	Pro>
1250	1260		1270		1280		1290								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TCC	CTC	CGC	ATC	GCA	GCC	AGC	ACC	CTG	AAG	TCT	GGG	ATT	TCC	TAC	AGG
Ser	Leu	Arg	Ile	Ala	Ala	Ser	Thr	Leu	Lys	Ser	Gly	Ile	Ser	Tyr	Arg>
1300		1310		1320		1330		1340							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GCA	CGG	GTG	AGG	GCC	TGG	GCT	CAG	TGC	TAT	AAC	ACC	ACC	TGG	AGT	GAG
Ala	Arg	Val	Arg	Ala	Trp	Ala	Gln	Cys	Tyr	Asn	Thr	Thr	Trp	Ser	Glu>
1350		1360		1370		1380		1390							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TGG	AGC	CCC	AGC	ACC	AAG	TGG	CAC	AAC	TCC	TAC	AGG	GAG	CCC	TTC	GAG
Trp	Ser	Pro	Ser	Thr	Lys	Trp	His	Asn	Ser	Tyr	Arg	Glu	Pro	Phe	Glu>
1400		1410		1420		1430		1440							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CAG	TCC	GGA	GAC	AAA	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	GAA
Gln	Ser	Gly	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu>
1450		1460		1470		1480									
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CTC	CTG	GGG	GGA	CCG	TCA	GTC	TTC	CTC	TTC	CCC	CCA	AAA	CCC	AAG	GAC
Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp>
1490	1500		1510		1520		1530								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ACC	CTC	ATG	ATC	TCC	CGG	ACC	CCT	GAG	GTC	ACA	TGC	GTG	GTG	GTG	GAC
Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp>
1540		1550		1560		1570		1580							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GTG	AGC	CAC	GAA	GAC	CCT	GAG	GTC	AAG	TTC	AAC	TGG	TAC	GTG	GAC	GGC
Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly>
1590		1600		1610		1620		1630							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GTG	GAG	GTG	CAT	AAT	GCC	AAG	ACA	AAG	CCG	CGG	GAG	GAG	CAG	TAC	AAC
Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn>
1640		1650		1660		1670		1680							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AGC	ACG	TAC	CGT	GTG	GTC	AGC	GTC	CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG
Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp>
1690		1700		1710		1720									
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC	AAC	AAA	GCC	CTC	CCA
Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro>
1730	1740		1750		1760		1770								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA
Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu>



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Fig.21D.

1780		1790		1800		1810		1820
* *		* *		* *		* *		* *
CCA CAG GTG TAC ACC CTG CCC CCA TCC CGG GAG GAG ATG ACC AAG AAC								
Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn>								
1830		1840		1850		1860		1870
* *		* *		* *		* *		* *
CAG GTC AGC CTG ACC TGC CTG GTC AAA GGC TTC TAT CCC AGC GAC ATC								
Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile>								
1880		1890		1900		1910		1920
* *		* *		* *		* *		* *
GCC GTG GAG TGG GAG AGC AAT GGG CAG CCG GAG AAC AAC TAC AAG ACC								
Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr>								
1930		1940		1950		1960		
* *		* *		* *		* *		
ACG CCT CCC GTG CTG GAC TCC GAC GGC TCC TTC TTC CTC TAT AGC AAG								
Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys>								
1970		1980		1990		2000		2010
* *		* *		* *		* *		* *
CTC ACC GTG GAC AAG AGC AGG TGG CAG CAG GGG AAC GTC TTC TCA TGC								
Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys>								
2020		2030		2040		2050		2060
* *		* *		* *		* *		* *
TCC GTG ATG CAT GAG GCT CTG CAC AAC CAC TAC ACG CAG AAG AGC CTC								
Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu>								
2070		2080						
* *		* *		* *				
TCC CTG TCT CCG GGT AAA TGA								
Ser Leu Ser Pro Gly Lys ***>								



20/60

Fig.22A.

```

      10      20      30      40
      *      *      *      *
ATG GTG AAG CCA TCA TTA CCA TTC ACA TCC CTC TTA TTC CTG CAG CTG
Met Val Lys Pro Ser Leu Pro Phe Thr Ser Leu Leu Phe Leu Gln Leu>

50      60      70      80      90
      *      *      *      *      *
CCC CTG CTG GGA GTG GGG CTG AAC ACG ACA ATT CTG ACG CCC AAT GGG
Pro Leu Leu Gly Val Gly Leu Asn Thr Thr Ile Leu Thr Pro Asn Gly>

100      110      120      130      140
      *      *      *      *      *
AAT GAA GAC ACC ACA GCT GAT TTC TTC CTG ACC ACT ATG CCC ACT GAC
Asn Glu Asp Thr Thr Ala Asp Phe Phe Leu Thr Thr Met Pro Thr Asp>

150      160      170      180      190
      *      *      *      *      *
TCC CTC AGT GTT TCC ACT CTG CCC CTC CCA GAG GTT CAG TGT TTT GTG
Ser Leu Ser Val Ser Thr Leu Pro Leu Pro Glu Val Gln Cys Phe Val>

200      210      220      230      240
      *      *      *      *      *
TTC AAT GTC GAG TAC ATG AAT TGC ACT TGG AAC AGC AGC TCT GAG CCC
Phe Asn Val Glu Tyr Met Asn Cys Thr Trp Asn Ser Ser Ser Glu Pro>

250      260      270      280
      *      *      *      *      *
CAG CCT ACC AAC CTC ACT CTG CAT TAT TGG TAC AAG AAC TCG GAT AAT
Gln Pro Thr Asn Leu Thr Leu His Tyr Trp Tyr Lys Asn Ser Asp Asn>

290      300      310      320      330
      *      *      *      *      *
GAT AAA GTC CAG AAG TGC AGC CAC TAT CTA TTC TCT GAA GAA ATC ACT
Asp Lys Val Gln Lys Cys Ser His Tyr Leu Phe Ser Glu Glu Ile Thr>

340      350      360      370      380
      *      *      *      *      *
TCT GGC TGT CAG TTG CAA AAA AAG GAG ATC CAC CTC TAC CAA ACA TTT
Ser Gly Cys Gln Leu Gln Lys Lys Glu Ile His Leu Tyr Gln Thr Phe>

390      400      410      420      430
      *      *      *      *      *
GTT GTT CAG CTC CAG GAC CCA CGG GAA CCC AGG AGA CAG GCC ACA CAG
Val Val Gln Leu Gln Asp Pro Arg Glu Pro Arg Arg Gln Ala Thr Gln>

440      450      460      470      480
      *      *      *      *      *
ATG CTA AAA CTG CAG AAT CTG GTG ATC CCC TGG GCT CCA GAG AAC CTA
Met Leu Lys Leu Gln Asn Leu Val Ile Pro Trp Ala Pro Glu Asn Leu>

490      500      510      520
      *      *      *      *      *
ACA CTT CAC AAA CTG AGT GAA TCC CAG CTA GAA CTG AAC TGG AAC AAC
Thr Leu His Lys Leu Ser Glu Ser Gln Leu Glu Leu Asn Trp Asn Asn>

530      540      550      560      570
      *      *      *      *      *
AGA TTC TTG AAC CAC TGT TTG GAG CAC TTG GTG CAG TAC CGG ACT GAC
Arg Phe Leu Asn His Cys Leu Glu His Leu Val Gln Tyr Arg Thr Asp>

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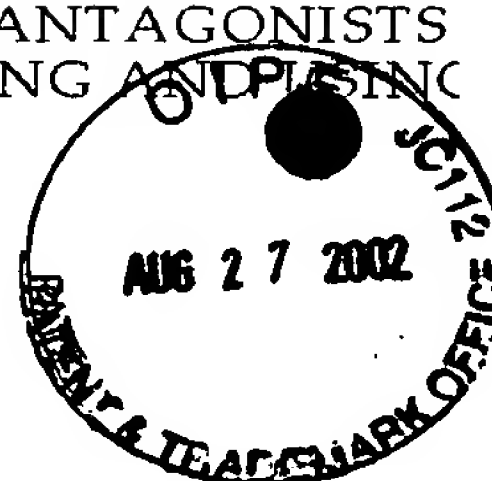
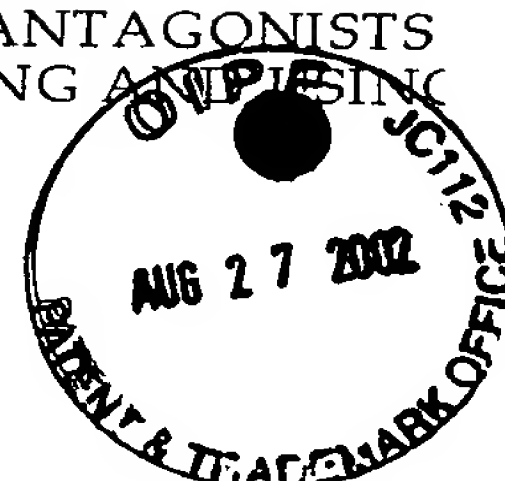



Fig.22B.

580 590 600 610 620
* * * * *
TGG GAC CAC AGC TGG ACT GAA CAA TCA GTG GAT TAT AGA CAT AAG TTC
Trp Asp His Ser Trp Thr Glu Gln Ser Val Asp Tyr Arg His Lys Phe>
630 640 650 660 670
* * * * *
TCC TTG CCT AGT GTG GAT GGG CAG AAA CGC TAC ACG TTT CGT GTT CGG
Ser Leu Pro Ser Val Asp Gly Gln Lys Arg Tyr Thr Phe Arg Val Arg>
680 690 700 710 720
* * * * *
AGC CGC TTT AAC CCA CTC TGT GGA AGT GCT CAG CAT TGG AGT GAA TGG
Ser Arg Phe Asn Pro Leu Cys Gly Ser Ala Gln His Trp Ser Glu Trp>
730 740 750 760
* * * * *
AGC CAC CCA ATC CAC TGG GGG AGC AAT ACT TCA AAA GAG AAC GGG AAC
Ser His Pro Ile His Trp Gly Ser Asn Thr Ser Lys Glu Asn Gly Asn>
770 780 790 800 810
* * * * *
ATG AAG GTC CTG CAG GAG CCC ACC TGC GTC TCC GAC TAC ATG AGC ATC
Met Lys Val Leu Gln Glu Pro Thr Cys Val Ser Asp Tyr Met Ser Ile>
820 830 840 850 860
* * * * *
TCT ACT TGC GAG TGG AAG ATG AAT GGT CCC ACC AAT TGC AGC ACC GAG
Ser Thr Cys Glu Trp Lys Met Asn Gly Pro Thr Asn Cys Ser Thr Glu>
870 880 890 900 910
* * * * *
CTC CGC CTG TTG TAC CAG CTG GTT TTT CTG CTC TCC GAA GCC CAC ACG
Leu Arg Leu Leu Tyr Gln Leu Val Phe Leu Leu Ser Glu Ala His Thr>
920 930 940 950 960
* * * * *
TGT ATC CCT GAG AAC AAC GGA GGC GCG GGG TGC GTG TGC CAC CTG CTC
Cys Ile Pro Glu Asn Asn Gly Gly Ala Gly Cys Val Cys His Leu Leu>
970 980 990 1000
* * * * *
ATG GAT GAC GTG GTC AGT GCG GAT AAC TAT ACA CTG GAC CTG TGG GCT
Met Asp Asp Val Val Ser Ala Asp Asn Tyr Thr Leu Asp Leu Trp Ala>
1010 1020 1030 1040 1050
* * * * *
GGG CAG CAG CTG CTG TGG AAG GGC TCC TTC AAG CCC AGC GAG CAT GTG
Gly Gln Gln Leu Leu Trp Lys Gly Ser Phe Lys Pro Ser Glu His Val>
1060 1070 1080 1090 1100
* * * * *
AAA CCC AGG GCC CCA GGA AAC CTG ACA GTT CAC ACC AAT GTC TCC GAC
Lys Pro Arg Ala Pro Gly Asn Leu Thr Val His Thr Asn Val Ser Asp>
1110 1120 1130 1140 1150
* * * * *
ACT CTG CTG CTG ACC TGG AGC AAC CCG TAT CCC CCT GAC AAT TAC CTG
Thr Leu Leu Leu Thr Trp Ser Asn Pro Tyr Pro Pro Asp Asn Tyr Leu>
1160 1170 1180 1190 1200
* * * * *



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Fig.22C.

TAT	AAT	CAT	CTC	ACC	TAT	GCA	GTC	AAC	ATT	TGG	AGT	GAA	AAC	GAC	CCG
Tyr	Asn	His	Leu	Thr	Tyr	Ala	Val	Asn	Ile	Trp	Ser	Glu	Asn	Asp	Pro>

1210	1220	1230	1240
*	*	*	*
GCA	GAT	TTC	AGA
Ala	Asp	Phe	Arg

1250	1260	1270	1280	1290
*	*	*	*	*
ATC	GCA	GCC	AGC	ACC
Ile	Ala	Ala	Ser	Thr

1300	1310	1320	1330	1340
*	*	*	*	*
AGG	GCC	TGG	GCT	CAG
Arg	Ala	Trp	Ala	Gln

1350	1360	1370	1380	1390
*	*	*	*	*
AGC	ACC	AAG	TGG	CAC
Ser	Thr	Lys	Trp	His

1400	1410	1420	1430	1440
*	*	*	*	*
GAC	AAA	ACT	CAC	ACA
Asp	Lys	Thr	His	Thr

1450	1460	1470	1480
*	*	*	*
GGA	CCG	TCA	GTC
Gly	Pro	Ser	Val

1490	1500	1510	1520	1530
*	*	*	*	*
ATC	TCC	CGG	ACC	CCT
Ile	Ser	Arg	Thr	Pro

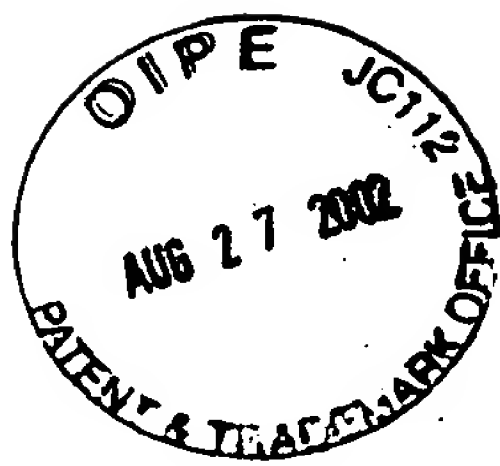
1540	1550	1560	1570	1580
*	*	*	*	*
GAA	GAC	CCT	GAG	GTC
Glu	Asp	Pro	Glu	Val

1590	1600	1610	1620	1630
*	*	*	*	*
CAT	AAT	GCC	AAG	ACA
His	Asn	Ala	Lys	Thr

1640	1650	1660	1670	1680
*	*	*	*	*
CGT	GTG	GTC	AGC	GTC
Arg	Val	Val	Ser	Val

1690	1700	1710	1720
*	*	*	*
AAG	GAG	TAC	AAG
Lys	Glu	Tyr	Lys

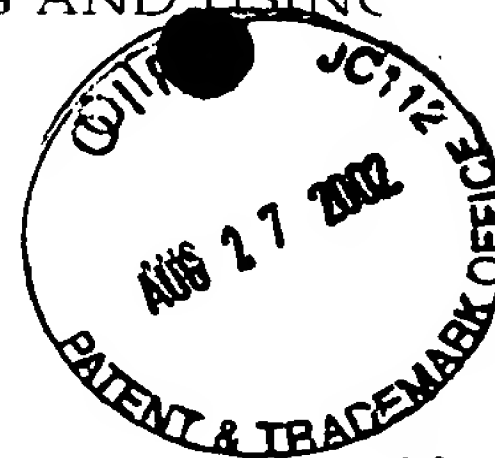
1730	1740	1750	1760	1770
*	*	*	*	*
GAG	AAA	ACC	ATC	TCC
Glu	Lys	Thr	Ile	Ser



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Fig.22D.

1780		1790		1800		1810		1820
*	*	*	*	*	*	*	*	*
TAC ACC CTG	CCC CCA TCC	CGG GAT GAG	CTG ACC AAG	AAC CAG GTC	AGC			
Tyr Thr Leu	Pro Pro Ser	Arg Asp Glu	Leu Thr Lys	Asn Gln Val	Ser>			
1830		1840		1850		1860		1870
*	*	*	*	*	*	*	*	*
CTG ACC TGC	CTG GTC AAA	GGC TTC TAT	CCC AGC GAC	ATC GCC GTG	GAG			
Leu Thr Cys	Leu Val Lys	Gly Phe Tyr	Pro Ser Asp	Ile Ala Val	Glu>			
1880		1890		1900		1910		1920
*	*	*	*	*	*	*	*	*
TGG GAG AGC	AAT GGG CAG	CCG GAG AAC	AAC TAC AAG	ACC ACG CCT	CCC			
Trp Glu Ser	Asn Gly Gln	Pro Glu Asn	Asn Tyr Lys	Thr Thr Pro	Pro>			
1930		1940		1950		1960		
*	*	*	*	*	*	*	*	*
GTG CTG GAC	TCC GAC GGC	TCC TTC CTC	TAT AGC AAG	CTC ACC GTG				
Val Leu Asp	Ser Asp Gly	Ser Phe Phe	Leu Tyr Ser	Lys Leu Thr	Val>			
1970		1980		1990		2000		2010
*	*	*	*	*	*	*	*	*
GAC AAG AGC	AGG TGG CAG	CAG GGG AAC	GTC TTC TCA	TGC TCC GTG	ATG			
Asp Lys Ser	Arg Trp Gln	Gln Gly Asn	Val Phe Ser	Cys Ser Val	Met>			
2020		2030		2040		2050		2060
*	*	*	*	*	*	*	*	*
CAT GAG GCT	CTG CAC AAC	CAC TAC ACG	CAG AAG AGC	CTC TCC CTG	TCT			
His Glu Ala	Leu His Asn	His Tyr Thr	Gln Lys Ser	Leu Ser Leu	Ser>			
2070								
*	*	*						
CCG GGT AAA	TGA							
Pro Gly Lys	***>							



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Fig.23A.

			10				20				30				40			
	*		*		*		*		*		*		*		*		*	
ATG	GTG	AAG	CCA	TCA	TTA	CCA	TTC	ACA	TCC	CTC	TTA	TTC	CTG	CAG	CTG			
Met	Val	Lys	Pro	Ser	Leu	Pro	Phe	Thr	Ser	Leu	Leu	Phe	Leu	Gln	Leu>			
50			60				70				80			90				
*		*	*		*		*		*		*		*	*		*		*
CCC	CTG	CTG	GGA	GTG	GGG	CTG	AAC	ACG	ACA	ATT	CTG	ACG	CCC	AAT	GGG			
Pro	Leu	Leu	Gly	Val	Gly	Leu	Asn	Thr	Thr	Ile	Leu	Thr	Pro	Asn	Gly>			
100			110				120				130			140				
*		*	*		*		*		*		*		*	*		*		*
AAT	GAA	GAC	ACC	ACA	GCT	GAT	TTC	TTC	CTG	ACC	ACT	ATG	CCC	ACT	GAC			
Asn	Glu	Asp	Thr	Thr	Ala	Asp	Phe	Phe	Leu	Thr	Thr	Met	Pro	Thr	Asp>			
150			160				170				180			190				
*	*		*		*		*		*		*		*	*		*		*
TCC	CTC	AGT	GTT	TCC	ACT	CTG	CCC	CTC	CCA	GAG	GTT	CAG	TGT	TTT	GTG			
Ser	Leu	Ser	Val	Ser	Thr	Leu	Pro	Leu	Pro	Glu	Val	Gln	Cys	Phe	Val>			
200			210				220				230			240				
*	*		*		*		*		*		*		*	*		*		*
TTC	AAT	GTC	GAG	TAC	ATG	AAT	TGC	ACT	TGG	AAC	AGC	AGC	TCT	GAG	CCC			
Phe	Asn	Val	Glu	Tyr	Met	Asn	Cys	Thr	Trp	Asn	Ser	Ser	Ser	Glu	Pro>			
250			260				270				280							
*	*		*		*		*		*		*		*	*		*		*
CAG	CCT	ACC	AAC	CTC	ACT	CTG	CAT	TAT	TGG	TAC	AAG	AAC	TCG	GAT	AAT			
Gln	Pro	Thr	Asn	Leu	Thr	Leu	His	Tyr	Trp	Tyr	Lys	Asn	Ser	Asp	Asn>			
290			300				310				320			330				
*	*		*		*		*		*		*		*	*		*		*
GAT	AAA	GTC	CAG	AAG	TGC	AGC	CAC	TAT	CTA	TTC	TCT	GAA	GAA	ATC	ACT			
Asp	Lys	Val	Gln	Lys	Cys	Ser	His	Tyr	Leu	Phe	Ser	Glu	Glu	Ile	Thr>			
340			350				360				370			380				
*	*		*		*		*		*		*		*	*		*		*
TCT	GGC	TGT	CAG	TTG	CAA	AAA	AAG	GAG	ATC	CAC	CTC	TAC	CAA	ACA	TTT			
Ser	Gly	Cys	Gln	Leu	Gln	Lys	Lys	Glu	Ile	His	Leu	Tyr	Gln	Thr	Phe>			
390			400				410				420			430				
*	*		*		*		*		*		*		*	*		*		*
GTT	GTT	CAG	CTC	CAG	GAC	CCA	CGG	GAA	CCC	AGG	AGA	CAG	GCC	ACA	CAG			
Val	Val	Gln	Leu	Gln	Asp	Pro	Arg	Glu	Pro	Arg	Arg	Gln	Ala	Thr	Gln>			
440			450				460				470			480				
*	*		*		*		*		*		*		*	*		*		*
ATG	CTA	AAA	CTG	CAG	AAT	CTG	GTG	ATC	CCC	TGG	GCT	CCA	GAG	AAC	CTA			
Met	Leu	Lys	Leu	Gln	Asn	Leu	Val	Ile	Pro	Trp	Ala	Pro	Glu	Asn	Leu>			
490			500				510				520							
*	*		*		*		*		*		*		*	*		*		*
ACA	CTT	CAC	AAA	CTG	AGT	GAA	TCC	CAG	CTA	GAA	CTG	AAC	TGG	AAC	AAC			
Thr	Leu	His	Lys	Leu	Ser	Glu	Ser	Gln	Leu	Glu	Leu	Asn	Trp	Asn	Asn>			
530			540				550				560			570				
*	*		*		*		*		*		*		*	*		*		*
AGA	TTC	TTG	AAC	CAC	TGT	TTG	GAG	CAC	TTG	GTG	CAG	TAC	CGG	ACT	GAC			
Arg	Phe	Leu	Asn	His	Cys	Leu	Glu	His	Leu	Val	Gln	Tyr	Arg	Thr	Asp>			



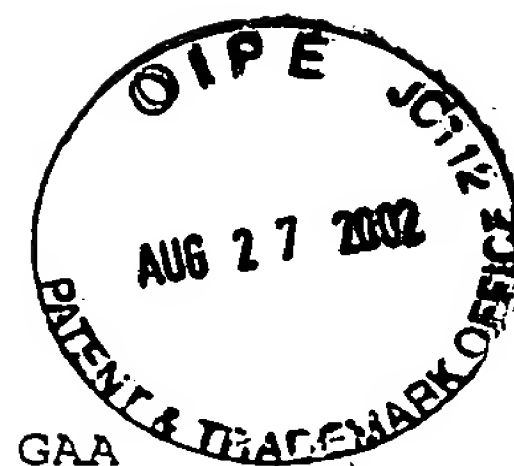
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Fig.23B.

580	590	600	610	620
* * *	* * *	* * *	* * *	* * *
TGG GAC CAC AGC	TGG ACT GAA CAA TCA	GTG GAT TAT AGA	CAT AAG TTC	
Trp Asp His Ser	Trp Thr Glu Gln Ser	Val Asp Tyr Arg	His Lys Phe>	
630	640	650	660	670
* * *	* * *	* * *	* * *	* * *
TCC TTG CCT AGT	GTG GAT GGG CAG	AAA CGC TAC ACG	TTT CGT GTT CGG	
Ser Leu Pro Ser	Val Asp Gly Gln Lys	Arg Tyr Thr Phe	Arg Val Arg>	
680	690	700	710	720
* * *	* * *	* * *	* * *	* * *
AGC CGC TTT AAC	CCA CTC TGT GGA	AGT GCT CAG CAT	TGG AGT GAA TGG	
Ser Arg Phe Asn	Pro Leu Cys Gly	Ser Ala Gln His	Trp Ser Glu Trp>	
730	740	750	760	
* * *	* * *	* * *	* * *	
AGC CAC CCA ATC	CAC TGG GGG AGC	AAT ACT TCA AAA	GAG AAC GCG TCG	
Ser His Pro Ile	His Trp Gly Ser	Asn Thr Ser Lys	Glu Asn Ala Ser>	
770	780	790	800	810
* * *	* * *	* * *	* * *	* * *
TCT GGG AAC ATG	AAG GTC CTG CAG	GAG CCC ACC TGC	GTC TCC GAC TAC	
Ser Gly Asn Met	Lys Val Leu Gln	Glu Pro Thr Cys	Val Ser Asp Tyr>	
820	830	840	850	860
* * *	* * *	* * *	* * *	* * *
ATG AGC ATC TCT	ACT TGC GAG TGG	AAG ATG AAT GGT	CCC ACC AAT TGC	
Met Ser Ile Ser	Thr Cys Glu Trp	Lys Met Asn Gly	Pro Thr Asn Cys>	
870	880	890	900	910
* * *	* * *	* * *	* * *	* * *
AGC ACC GAG CTC	CGC CTG TTG TAC	CAG CTG GTT TTT	CTG CTC TCC GAA	
Ser Thr Glu Leu	Arg Leu Leu Tyr	Gln Leu Val Phe	Leu Leu Ser Glu>	
920	930	940	950	960
* * *	* * *	* * *	* * *	* * *
GCC CAC ACG TGT	ATC CCT GAG AAC	AAC GGA GGC GCG	GGG TGC GTG TGC	
Ala His Thr Cys	Ile Pro Glu Asn	Asn Gly Gly Ala	Gly Cys Val Cys>	
970	980	990	1000	
* * *	* * *	* * *	* * *	
CAC CTG CTC ATG	GAT GAC GTG GTC	AGT GCG GAT AAC	TAT ACA CTG GAC	
His Leu Leu Met	Asp Asp Val Val	Ser Ala Asp Asn	Tyr Thr Leu Asp>	
1010	1020	1030	1040	1050
* * *	* * *	* * *	* * *	* * *
CTG TGG GCT GGG	CAG CAG CTG CTG	TGG AAG GGC TCC	TTC AAG CCC AGC	
Leu Trp Ala Gly	Gln Gln Leu Leu	Trp Lys Gly Ser	Phe Lys Pro Ser>	
1060	1070	1080	1090	1100
* * *	* * *	* * *	* * *	* * *
GAG CAT GTG AAA	CCC AGG GCC CCA	GGA AAC CTG ACA	GTT CAC ACC AAT	
Glu His Val Lys	Pro Arg Ala Pro	Gly Asn Leu Thr	Val His Thr Asn>	
1110	1120	1130	1140	1150
* * *	* * *	* * *	* * *	* * *
GTC TCC GAC ACT	CTG CTG CTG ACC	TGG AGC AAC CCG	TAT CCC CCT GAC	
Val Ser Asp Thr	Leu Leu Leu Thr	Trp Ser Asn Pro	Tyr Pro Pro Asp>	
1160	1170	1180	1190	1200
* * *	* * *	* * *	* * *	* * *

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Fig.23C.



AAT TAC CTG TAT AAT CAT CTC ACC TAT GCA GTC AAC ATT TGG AGT GAA
Asn Tyr Leu Tyr Asn His Leu Thr Tyr Ala Val Asn Ile Trp Ser Glu>

1210 1220 1230 1240
* * * * *
AAC GAC CCG GCA GAT TTC AGA ATC TAT AAC GTG ACC TAC CTA GAA CCC
Asn Asp Pro Ala Asp Phe Arg Ile Tyr Asn Val Thr Tyr Leu Glu Pro>

1250 1260 1270 1280 1290
* * * * *
TCC CTC CGC ATC GCA GCC AGC ACC CTG AAG TCT GGG ATT TCC TAC AGG
Ser Leu Arg Ile Ala Ala Ser Thr Leu Lys Ser Gly Ile Ser Tyr Arg>

1300 1310 1320 1330 1340
* * * * *
GCA CGG GTG AGG GCC TGG GCT CAG AGC TAT AAC ACC ACC TGG AGT GAG
Ala Arg Val Arg Ala Trp Ala Gln Ser Tyr Asn Thr Thr Trp Ser Glu>

1350 1360 1370 1380 1390
* * * * *
TGG AGC CCC AGC ACC AAG TGG CAC AAC TCC TAC AGG GAG CCC TTC GAG
Trp Ser Pro Ser Thr Lys Trp His Asn Ser Tyr Arg Glu Pro Phe Glu>

1400 1410 1420 1430 1440
* * * * *
CAG TCC GGA GAC AAA ACT CAC ACA TGC CCA CCG TGC CCA GCA CCT GAA
Gln Ser Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu>

1450 1460 1470 1480
* * * * *
CTC CTG GGG GGA CCG TCA GTC TTC CTC TTC CCC CCA AAA CCC AAG GAC
Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp>

1490 1500 1510 1520 1530
* * * * *
ACC CTC ATG ATC TCC CGG ACC CCT GAG GTC ACA TGC GTG GTG GTG GAC
Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp>

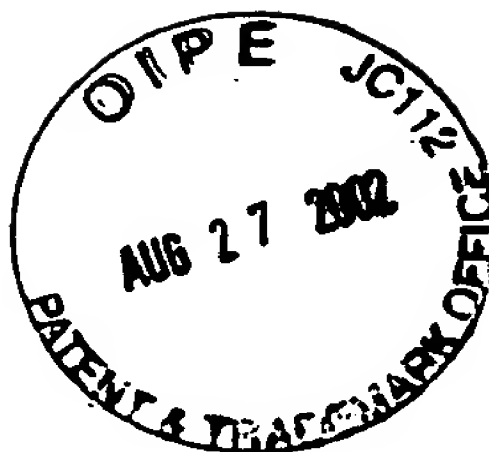
1540 1550 1560 1570 1580
* * * * *
GTG AGC CAC GAA GAC CCT GAG GTC AAG TTC AAC TGG TAC GTG GAC GGC
Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly>

1590 1600 1610 1620 1630
* * * * *
GTG GAG GTG CAT AAT GCC AAG ACA AAG CCG CGG GAG GAG CAG TAC AAC
Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn>

1640 1650 1660 1670 1680
* * * * *
AGC ACG TAC CGT GTG GTC AGC GTC CTC ACC GTC CTG CAC CAG GAC TGG
Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp>

1690 1700 1710 1720
* * * * *
CTG AAT GGC AAG GAG TAC AAG TGC AAG GTC TCC AAC AAA GCC CTC CCA
Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro>

1730 1740 1750 1760 1770
* * * * *
GCC CCC ATC GAG AAA ACC ATC TCC AAA GCC AAA GGG CAG CCC CGA GAA
Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu>



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Fig.23D.

1780	1790	1800	1810	1820
* * *	* * *	* * *	* * *	* * *
CCA CAG GTG TAC ACC CTG CCC CCA TCC CGG GAT GAG CTG ACC AAG AAC				
Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn>				
1830	1840	1850	1860	1870
* * *	* * *	* * *	* * *	* * *
CAG GTC AGC CTG ACC TGC CTG GTC AAA GGC TTC TAT CCC AGC GAC ATC				
Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile>				
1880	1890	1900	1910	1920
* * *	* * *	* * *	* * *	* * *
GCC GTG GAG TGG GAG AGC AAT GGG CAG CCG GAG AAC AAC TAC AAG ACC				
Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr>				
1930	1940	1950	1960	
* * *	* * *	* * *	* * *	
ACG CCT CCC GTG CTG GAC TCC GAC GGC TCC TTC TTC CTC TAT AGC AAG				
Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys>				
1970	1980	1990	2000	2010
* * *	* * *	* * *	* * *	* * *
CTC ACC GTG GAC AAG AGC AGG TGG CAG CAG GGG AAC GTC TTC TCA TGC				
Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys>				
2020	2030	2040	2050	2060
* * *	* * *	* * *	* * *	* * *
TCC GTG ATG CAT GAG GCT CTG CAC AAC CAC TAC ACG CAG AAG AGC CTC				
Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu>				
2070	2080			
* * *	* * *			
TCC CTG TCT CCG GGT AAA TGA				
Ser Leu Ser Pro Gly Lys ***>				



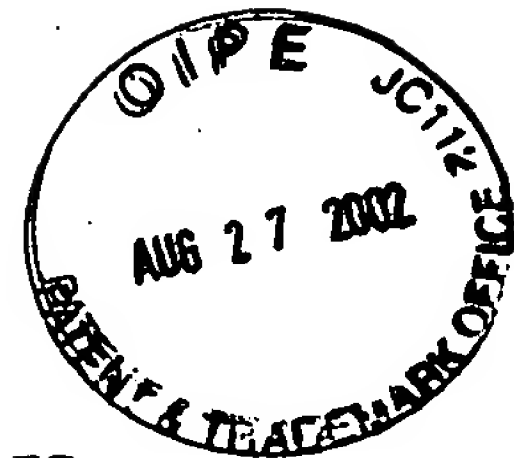
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Fig.24A.

	10		20		30		40								
*	*	*	*	*	*	*	*	*							
ATG	GTG	GCC	GTC	GGC	TGC	GCG	CTG	CTG	GCT	GCC	CTG	CTG	GCC	GCG	CCG
Met	Val	Ala	Val	Gly	Cys	Ala	Leu	Leu	Ala	Ala	Leu	Leu	Ala	Ala	Pro>
50		60		70		80		90							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GGA	GCG	GCG	CTG	GCC	CCA	AGG	GCG	TGC	CCT	GCG	CAG	GAG	GTG	GCA	AGA
Gly	Ala	Ala	Leu	Ala	Pro	Arg	Arg	Cys	Pro	Ala	Gln	Glu	Val	Ala	Arg>
100		110		120		130		140							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GGC	GTG	CTG	ACC	AGT	CTG	CCA	GGA	GAC	AGC	GTG	ACT	CTG	ACC	TGC	CCG
Gly	Val	Leu	Thr	Ser	Leu	Pro	Gly	Asp	Ser	Val	Thr	Leu	Thr	Cys	Pro>
150		160		170		180		190							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GGG	GTA	GAG	CCG	GAA	GAC	AAT	GCC	ACT	GTT	CAC	TGG	GTG	CTC	AGG	AAG
Gly	Val	Glu	Pro	Glu	Asp	Asn	Ala	Thr	Val	His	Trp	Val	Leu	Arg	Lys>
200		210		220		230		240							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CCG	GCT	GCA	GCG	TCC	CAC	CCC	AGC	AGA	TGG	GCT	GCG	ATG	GGA	AGG	AGG
Pro	Ala	Ala	Gly	Ser	His	Pro	Ser	Arg	Trp	Ala	Gly	Met	Gly	Arg	Arg>
250		260		270		280									
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CTG	CTG	CTG	AGG	TCG	GTG	CAG	CTC	CAC	GAC	TCT	GGA	AAC	TAT	TCA	TGC
Leu	Leu	Leu	Arg	Ser	Val	Gln	Leu	His	Asp	Ser	Gly	Asn	Tyr	Ser	Cys>
290		300		310		320		330							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TAC	CGG	GCC	GGC	GCG	CCA	GCT	GGG	ACT	GTG	CAC	TTG	CTG	GTG	GAT	GTT
Tyr	Arg	Ala	Gly	Arg	Pro	Ala	Gly	Thr	Val	His	Leu	Leu	Val	Asp	Val>
340		350		360		370		380							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CCC	CCC	GAG	GAG	CCC	CAG	CTC	TCC	TGC	TTC	CGG	AAG	AGC	CCC	CTC	AGC
Pro	Pro	Glu	Glu	Pro	Gln	Leu	Ser	Cys	Phe	Arg	Lys	Ser	Pro	Leu	Ser>
390		400		410		420		430							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAT	GTT	GTT	TGT	GAG	TGG	GGT	CCT	CGG	AGC	ACC	CCA	TCC	CTG	ACG	ACA
Asn	Val	Val	Cys	Glu	Trp	Gly	Pro	Arg	Ser	Thr	Pro	Ser	Leu	Thr	Thr>
440		450		460		470		480							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAG	GCT	GTG	CTC	TTG	GTG	AGG	AAG	TTT	CAG	AAC	AGT	CCG	GCC	GAA	GAC
Lys	Ala	Val	Leu	Leu	Val	Arg	Lys	Phe	Gln	Asn	Ser	Pro	Ala	Glu	Asp>
490		500		510		520									
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TTC	CAG	GAG	CCG	TGC	CAG	TAT	TCC	CAG	GAG	TCC	CAG	AAG	TTC	TCC	TGC
Phe	Gln	Glu	Pro	Cys	Gln	Tyr	Ser	Gln	Glu	Ser	Gln	Lys	Phe	Ser	Cys>
530		540		550		560		570							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CAG	TTA	GCA	GTC	CCG	GAG	GGA	GAC	AGC	TCT	TTC	TAC	ATA	GTG	TCC	ATG
Gln	Leu	Ala	Val	Pro	Glu	Gly	Asp	Ser	Ser	Phe	Tyr	Ile	Val	Ser	Met>

Fig.24B.

580	590	600	610	620
TGC Cys	GTC Val	GCC Ala	AGT Ser	AGT Ser
GTC Val	GCC Ala	AGT Ser	AGT Ser	GTC Val
GGG Gly	AGC Ser	AAG Lys	TTC Phe	AGC Ser
AAA Lys	ACT Thr	CAA Gln	ACC Thr	TTT Phe
630	640	650	660	670
CAG Gln	GGT Gly	TGT Cys	GGA Gly	ATC Ile
TTG Leu	CAG Gln	CCT Pro	GAT Asp	CCG Pro
CCT Pro	GCC Ala	AAC Asn	ATC Ile	ACA Thr
GTC Val	680	690	700	710
ACT Thr	GCC Ala	GTG Val	GCC Ala	AGA Arg
AAC Asn	CCC Pro	CGC Arg	TGG Trp	CTC Leu
AGT Ser	GTC Val	ACC Thr	TGG Trp	CAA Gln
GAC Asp	730	740	750	760
CCC Pro	CAC His	TCC Ser	TGG Trp	AAC Asn
TCA Ser	TCT Ser	Phe Phe	Tyr Tyr	AGA Arg
CTA Leu	CGG Arg	TTT Phe	GAG Glu	CTC Leu
AGA Arg	770	780	790	800
TAT Tyr	CGG Arg	GCT Ala	GAA Glu	CGG Arg
TCA Ser	AAG Lys	ACA Thr	TTC Phe	ACA Thr
ACA Thr	TGG Trp	ATG Met	GTC Val	AAG Lys
GAC Asp	820	830	840	850
CTC Leu	CAG Gln	CAT His	CAC His	GAC Asp
GCC Ala	TGG Trp	AGC Ser	GGC Gly	CTG Leu
AGG Arg	CAC His	860	870	880
GTG Val	GTG Val	CAG Gln	CTT Leu	CGT Arg
GCC Ala	CAG Gln	GAG Glu	GAG Glu	TTC Phe
GGG Gly	CAA Gln	GGC Gly	GAG Glu	TGG Trp
AGC Ser	900	910	920	930
GAG Glu	TGG Trp	AGC Ser	CCG Pro	GAG Glu
GCC Ala	ATG Met	GGC Gly	ACG Thr	CCT Pro
TGG Trp	ACA Thr	GAA Glu	TCC Ser	AGG Arg
AGT Ser	940	950	960	970
CCT Pro	CCA Pro	GCT Ala	GAG Glu	AAC Asn
GAG Glu	GTG Val	TCC Ser	ACC Thr	CCC Pro
ATG Met	ACC Thr	GGT Gly	GGC Gly	GCG Ala
CCT Pro	1010	1020	1030	1040
TCA Ser	GGT Gly	GCT Ala	CAG Gln	CTG Leu
GAA Glu	CTT Leu	CTA Leu	GAC Asp	CCA Pro
TGT Cys	GGT Gly	TAT Tyr	ATC Ile	AGT Ser
CCT Pro	1060	1070	1080	1090
GAA Glu	TCT Ser	CCA Pro	GTT Val	GTA Gln
CAA Leu	CTT Leu	CAT His	TCT Ser	AAT Asn
TTC Phe	ACT Thr	GCA Ala	GTT Val	TGT Cys
GTG Val	1110	1120	1130	1140
CTA Leu	AAG Lys	GAA Glu	AAA Lys	TGT Cys
ATG Met	GAT Asp	TAT Tyr	TTT Phe	CAT His
GTA Val	AAT Asn	GCT Ala	AAT Asn	TAC Tyr
ATT Ile	1160	1170	1180	1190
CTA Leu	AAG Lys	GAA Glu	AAA Lys	TGT Cys
ATG Met	GAT Asp	TAT Tyr	TTT Phe	CAT His
GTA Val	AAT Asn	GCT Ala	AAT Asn	TAC Tyr
ATT Ile	1200			



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Fig.24C.

GTC TGG AAA ACA AAC CAT TTT ACT ATT CCT AAG GAG CAA TAT ACT ATC
Val Trp Lys Thr Asn His Phe Thr Ile Pro Lys Glu Gln Tyr Thr Ile>

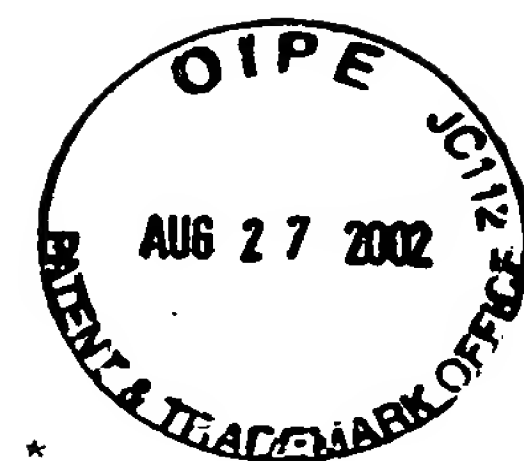
1210	1220	1230	1240
* * *	* * *	* * *	* * *
ATA AAC AGA ACA GCA TCC AGT GTC ACC TTT ACA GAT ATA GCT TCA TTA			
Ile Asn Arg Thr Ala Ser Ser Val Thr Phe Thr Asp Ile Ala Ser Leu>			
1250	1260	1270	1280
* * *	* * *	* * *	* * *
AAT ATT CAG CTC ACT TGC AAC ATT CTT ACA TTC GGA CAG CTT GAA CAG			
Asn Ile Gln Leu Thr Cys Asn Ile Leu Thr Phe Gly Gln Leu Glu Gln>			
1300	1310	1320	1330
* * *	* * *	* * *	* * *
AAT GTT TAT GGA ATC ACA ATA ATT TCA GGC TTG CCT CCA GAA AAA CCT			
Asn Val Tyr Gly Ile Thr Ile Ile Ser Gly Leu Pro Pro Glu Lys Pro>			
1350	1360	1370	1380
* * *	* * *	* * *	* * *
AAA AAT TTG AGT TGC ATT GTG AAC GAG GGG AAG AAA ATG AGG TGT GAG			
Lys Asn Leu Ser Cys Ile Val Asn Glu Gly Lys Lys Met Arg Cys Glu>			
1400	1410	1420	1430
* * *	* * *	* * *	* * *
TGG GAT GGT GGA AGG GAA ACA CAC TTG GAG ACA AAC TTC ACT TTA AAA			
Trp Asp Gly Gly Arg Glu Thr His Leu Glu Thr Asn Phe Thr Leu Lys>			
1450	1460	1470	1480
* * *	* * *	* * *	* * *
TCT GAA TGG GCA ACA CAC AAG TTT GCT GAT TGC AAA GCA AAA CGT GAC			
Ser Glu Trp Ala Thr His Lys Phe Ala Asp Cys Lys Ala Lys Arg Asp>			
1490	1500	1510	1520
* * *	* * *	* * *	* * *
ACC CCC ACC TCA TGC ACT GTT GAT TAT TCT ACT GTG TAT TTT GTC AAC			
Thr Pro Thr Ser Cys Thr Val Asp Tyr Ser Thr Val Tyr Phe Val Asn>			
1540	1550	1560	1570
* * *	* * *	* * *	* * *
ATT GAA GTC TGG GTA GAA GCA GAG AAT GCC CTT GGG AAG GTT ACA TCA			
Ile Glu Val Trp Val Glu Ala Glu Asn Ala Leu Gly Lys Val Thr Ser>			
1590	1600	1610	1620
* * *	* * *	* * *	* * *
GAT CAT ATC AAT TTT GAT CCT GTA TAT AAA GTG AAG CCC AAT CCG CCA			
Asp His Ile Asn Phe Asp Pro Val Tyr Lys Val Lys Pro Asn Pro Pro>			
1640	1650	1660	1670
* * *	* * *	* * *	* * *
CAT AAT TTA TCA GTG ATC AAC TCA GAG GAA CTG TCT AGT ATC TTA AAA			
His Asn Leu Ser Val Ile Asn Ser Glu Glu Leu Ser Ser Ile Leu Lys>			
1690	1700	1710	1720
* * *	* * *	* * *	* * *
TTG ACA TGG ACC AAC CCA AGT ATT AAG AGT GTT ATA ATA CTA AAA TAT			
Leu Thr Trp Thr Asn Pro Ser Ile Lys Ser Val Ile Ile Leu Lys Tyr>			
1730	1740	1750	1760
* * *	* * *	* * *	* * *
AAC ATT CAA TAT AGG ACC AAA GAT GCC TCA ACT TGG AGC CAG ATT CCT			
Asn Ile Gln Tyr Arg Thr Lys Asp Ala Ser Thr Trp Ser Gln Ile Pro>			
1770			
* * *			

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Fig.24D.

1780	1790	1800	1810	1820
* * *	* * *	* * *	* * *	* * *
CCT GAA GAC ACA GCA TCC ACC CGA TCT TCA TTC ACT GTC CAA GAC CTT				
Pro Glu Asp Thr Ala Ser Thr Arg Ser Ser Phe Thr Val Gln Asp Leu>				
1830	1840	1850	1860	1870
* * *	* * *	* * *	* * *	* * *
AAA CCT TTT ACA GAA TAT GTG TTT AGG ATT CGC TGT ATG AAG GAA GAT				
Lys Pro Phe Thr Glu Tyr Val Phe Arg Ile Arg Cys Met Lys Glu Asp>				
1880	1890	1900	1910	1920
* * *	* * *	* * *	* * *	* * *
GGT AAG GGA TAC TGG AGT GAC TGG AGT GAA GAA GCA AGT GGG ATC ACC				
Gly Lys Gly Tyr Trp Ser Asp Trp Ser Glu Glu Ala Ser Gly Ile Thr>				
1930	1940	1950	1960	
* * *	* * *	* * *	* * *	
TAT GAA GAT AGA CCA TCT AAA GCA CCA AGT TTC TGG TAT AAA ATA GAT				
Tyr Glu Asp Arg Pro Ser Lys Ala Pro Ser Phe Trp Tyr Lys Ile Asp>				
1970	1980	1990	2000	2010
* * *	* * *	* * *	* * *	* * *
CCA TCC CAT ACT CAA GGC TAC AGA ACT GTA CAA CTC GTG TGG AAG ACA				
Pro Ser His Thr Gln Gly Tyr Arg Thr Val Gln Leu Val Trp Lys Thr>				
2020	2030	2040	2050	2060
* * *	* * *	* * *	* * *	* * *
TTG CCT CCT TTT GAA GCC AAT GGA AAA ATC TTG GAT TAT GAA GTG ACT				
Leu Pro Pro Phe Glu Ala Asn Gly Lys Ile Leu Asp Tyr Glu Val Thr>				
2070	2080	2090	2100	2110
* * *	* * *	* * *	* * *	* * *
CTC ACA AGA TGG AAA TCA CAT TTA CAA AAT TAC ACA GTT AAT GCC ACA				
Leu Thr Arg Trp Lys Ser His Leu Gln Asn Tyr Thr Val Asn Ala Thr>				
2120	2130	2140	2150	2160
* * *	* * *	* * *	* * *	* * *
AAA CTG ACA GTA AAT CTC ACA AAT GAT CGC TAT CTA GCA ACC CTA ACA				
Lys Leu Thr Val Asn Leu Thr Asn Asp Arg Tyr Leu Ala Thr Leu Thr>				
2170	2180	2190	2200	
* * *	* * *	* * *	* * *	
GTA AGA AAT CTT GTT GGC AAA TCA GAT GCA GCT GTT TTA ACT ATC CCT				
Val Arg Asn Leu Val Gly Lys Ser Asp Ala Ala Val Leu Thr Ile Pro>				
2210	2220	2230	2240	2250
* * *	* * *	* * *	* * *	* * *
GCC TGT GAC TTT CAA GCT ACT CAC CCT GTA ATG GAT CTT AAA GCA TTC				
Ala Cys Asp Phe Gln Ala Thr His Pro Val Met Asp Leu Lys Ala Phe>				
2260	2270	2280	2290	2300
* * *	* * *	* * *	* * *	* * *
CCC AAA GAT AAC ATG CTT TGG GTG GAA TGG ACT ACT CCA AGG GAA TCT				
Pro Lys Asp Asn Met Leu Trp Val Glu Trp Thr Thr Pro Arg Glu Ser>				
2310	2320	2330	2340	2350
* * *	* * *	* * *	* * *	* * *
GTA AAG AAA TAT ATA CTT GAG TGG TGT GTG TTA TCA GAT AAA GCA CCC				
Val Lys Lys Tyr Ile Leu Glu Trp Cys Val Leu Ser Asp Lys Ala Pro>				
2360	2370	2380	2390	2400



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Fig.24E.

```
* * * * *
TGT ATC ACA GAC TGG CAA CAA GAA GAT GGT ACC GTG CAT CGC ACC TAT
Cys Ile Thr Asp Trp Gln Gln Glu Asp Gly Thr Val His Arg Thr Tyr>

      2410      2420      2430      2440
* * * * *
TTA AGA GGG AAC TTA GCA GAG AGC AAA TGC TAT TTG ATA ACA GTT ACT
Leu Arg Gly Asn Leu Ala Glu Ser Lys Cys Tyr Leu Ile Thr Val Thr>

2450      2460      2470      2480      2490
* * * * *
CCA GTA TAT GCT GAT GGA CCA GGA AGC CCT GAA TCC ATA AAG GCA TAC
Pro Val Tyr Ala Asp Gly Pro Gly Ser Pro Glu Ser Ile Lys Ala Tyr>

      2500      2510      2520      2530      2540
* * * * *
CTT AAA CAA GCT CCA CCT TCC AAA GGA CCT ACT GTT CGG ACA AAA AAA
Leu Lys Gln Ala Pro Pro Ser Lys Gly Pro Thr Val Arg Thr Lys Lys>

      2550      2560      2570      2580      2590
* * * * *
GTA GGG AAA AAC GAA GCT GTC TTA GAG TGG GAC CAA CTT CCT GTT GAT
Val Gly Lys Asn Glu Ala Val Leu Glu Trp Asp Gln Leu Pro Val Asp>

      2600      2610      2620      2630      2640
* * * * *
GTT CAG AAT GGA TTT ATC AGA AAT TAT ACT ATA TTT TAT AGA ACC ATC
Val Gln Asn Gly Phe Ile Arg Asn Tyr Thr Ile Phe Tyr Arg Thr Ile>

      2650      2660      2670      2680
* * * * *
ATT GGA AAT GAA ACT GCT GTG AAT GTG GAT TCT TCC CAC ACA GAA TAT
Ile Gly Asn Glu Thr Ala Val Asn Val Asp Ser Ser His Thr Glu Tyr>

2690      2700      2710      2720      2730
* * * * *
ACA TTG TCC TCT TTG ACT AGT GAC ACA TTG TAC ATG GTA CGA ATG GCA
Thr Leu Ser Ser Leu Thr Ser Asp Thr Leu Tyr Met Val Arg Met Ala>

      2740      2750      2760      2770      2780
* * * * *
GCA TAC ACA GAT GAA GGT GGG AAG GAT GGT CCA GAA TTC ACT TTT ACT
Ala Tyr Thr Asp Glu Gly Gly Lys Asp Gly Pro Glu Phe Thr Phe Thr>

      2790      2800      2810      2820      2830
* * * * *
ACC CCA AAG TTT GCT CAA GGA GAA ATT GAA TCC GGG GGC GAC AAA ACT
Thr Pro Lys Phe Ala Gln Gly Glu Ile Glu Ser Gly Gly Asp Lys Thr>

      2840      2850      2860      2870      2880
* * * * *
CAC ACA TGC CCA CCG TGC CCA GCA CCT GAA CTC CTG GGG GGA CCG TCA
His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser>

      2890      2900      2910      2920
* * * * *
GTC TTC CTC TTC CCC CCA AAA CCC AAG GAC ACC CTC ATG ATC TCC CGG
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg>

2930      2940      2950      2960      2970
* * * * *
ACC CCT GAG GTC ACA TGC GTG GTG GTG GAC GTG AGC CAC GAA GAC CCT
```




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Fig.24F.

```

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro>
2980      2990      3000      3010      3020
*          *          *          *          *
GAG GTC AAG TTC AAC TGG TAC GTG GAC GGC GTG GAG GTG CAT AAT GCC
Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala>
3030      3040      3050      3060      3070
*          *          *          *          *
AAG ACA AAG CCG CGG GAG GAG CAG TAC AAC AGC ACG TAC CGT GTG GTC
Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val>
3080      3090      3100      3110      3120
*          *          *          *          *
AGC GTC CTC ACC GTC CTG CAC CAG GAC TGG CTG AAT GGC AAG GAG TAC
Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr>
3130      3140      3150      3160
*          *          *          *
AAG TGC AAG GTC TCC AAC AAA GCC CTC CCA GCC CCC ATC GAG AAA ACC
Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr>
3170      3180      3190      3200      3210
*          *          *          *          *
ATC TCC AAA GCC AAA GGG CAG CCC CGA GAA CCA CAG GTG TAC ACC CTG
Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu>
3220      3230      3240      3250      3260
*          *          *          *          *
CCC CCA TCC CGG GAT GAG CTG ACC AAG AAC CAG GTC AGC CTG ACC TGC
Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys>
3270      3280      3290      3300      3310
*          *          *          *          *
CTG GTC AAA GGC TTC TAT CCC AGC GAC ATC GCC GTG GAG TGG GAG AGC
Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser>
3320      3330      3340      3350      3360
*          *          *          *          *
AAT GGG CAG CCG GAG AAC AAC TAC AAG ACC ACG CCT CCC GTG CTG GAC
Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp>
3370      3380      3390      3400
*          *          *          *
TCC GAC GGC TCC TTC TTC CTC TAC AGC AAG CTC ACC GTG GAC AAG AGC
Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser>
3410      3420      3430      3440      3450
*          *          *          *          *
AGG TGG CAG CAG GGG AAC GTC TTC TCA TGC TCC GTG ATG CAT GAG GCT
Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala>
3460      3470      3480      3490      3500
*          *          *          *          *
CTG CAC AAC CAC TAC ACG CAG AAG AGC CTC TCC CTG TCT CCG GGT AAA
Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys>
*
TGA
***>

```


Fig.25A.

		10				20				30				40					
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ATG	GTG	GCC	GTC	GGC	TGC	GCG	CTG	CTG	GCT	GCC	CTG	CTG	GCC	GCG	CCG				
Met	Val	Ala	Val	Gly	Cys	Ala	Leu	Leu	Ala	Ala	Leu	Leu	Ala	Ala	Pro>				
50			60				70				80			90					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GGA	GCG	GCG	CTG	GCC	CCA	AGG	CGC	TGC	CCT	GCG	CAG	GAG	GTG	GCA	AGA				
Gly	Ala	Ala	Leu	Ala	Pro	Arg	Arg	Cys	Pro	Ala	Gln	Glu	Val	Ala	Arg>				
	100			110			120				130			140					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GGC	GTG	CTG	ACC	AGT	CTG	CCA	GGA	GAC	AGC	GTG	ACT	CTG	ACC	TGC	CCG				
Gly	Val	Leu	Thr	Ser	Leu	Pro	Gly	Asp	Ser	Val	Thr	Leu	Thr	Cys	Pro>				
	150			160			170				180			190					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GGG	GTA	GAG	CCG	GAA	GAC	AAT	GCC	ACT	GTT	CAC	TGG	GTG	CTC	AGG	AAG				
Gly	Val	Glu	Pro	Glu	Asp	Asn	Ala	Thr	Val	His	Trp	Val	Leu	Arg	Lys>				
	200			210			220				230			240					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CCG	GCT	GCA	GGC	TCC	CAC	CCC	AGC	AGA	TGG	GCT	GGC	ATG	GGA	AGG	AGG				
Pro	Ala	Ala	Gly	Ser	His	Pro	Ser	Arg	Trp	Ala	Gly	Met	Gly	Arg	Arg>				
	250			260			270				280								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CTG	CTG	CTG	AGG	TCG	GTG	CAG	CTC	CAC	GAC	TCT	GGA	AAC	TAT	TCA	TGC				
Leu	Leu	Leu	Arg	Ser	Val	Gln	Leu	His	Asp	Ser	Gly	Asn	Tyr	Ser	Cys>				
290			300				310				320			330					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TAC	CGG	GCC	GGC	CGC	CCA	GCT	GGG	ACT	GTG	CAC	TTG	CTG	GTG	GAT	GTT				
Tyr	Arg	Ala	Gly	Arg	Pro	Ala	Gly	Thr	Val	His	Leu	Leu	Val	Asp	Val>				
	340			350			360				370			380					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CCC	CCC	GAG	GAG	CCC	CAG	CTC	TCC	TGC	TTC	CGG	AAG	AGC	CCC	CTC	AGC				
Pro	Pro	Glu	Glu	Pro	Gln	Leu	Ser	Cys	Phe	Arg	Lys	Ser	Pro	Leu	Ser>				
	390			400			410				420			430					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAT	GTT	GTT	TGT	GAG	TGG	GGT	CCT	CGG	AGC	ACC	CCA	TCC	CTG	ACG	ACA				
Asn	Val	Val	Cys	Glu	Trp	Gly	Pro	Arg	Ser	Thr	Pro	Ser	Leu	Thr	Thr>				
	440			450			460				470								



35/60

Fig.25B.

580	590	600	610	620
* * *	* * *	* * *	* * *	* * *
TGC GTC GCC AGT AGT GTC GGG AGC AAG TTC AGC AAA ACT CAA ACC TTT				
Cys Val Ala Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe>				
630	640	650	660	670
* * *	* * *	* * *	* * *	* * *
CAG GGT TGT GGA ATC TTG CAG CCT GAT CCG CCT GCC AAC ATC ACA GTC				
Gln Gly Cys Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val>				
680	690	700	710	720
* * *	* * *	* * *	* * *	* * *
ACT GCC GTG GCC AGA AAC CCC CGC TGG CTC AGT GTC ACC TGG CAA GAC				
Thr Ala Val Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp>				
730	740	750	760	
* * *	* * *	* * *	* * *	
CCC CAC TCC TGG AAC TCA TCT TTC TAC AGA CTA CGG TTT GAG CTC AGA				
Pro His Ser Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg>				
770	780	790	800	810
* * *	* * *	* * *	* * *	* * *
TAT CGG GCT GAA CGG TCA AAG ACA TTC ACA ACA TGG ATG GTC AAG GAC				
Tyr Arg Ala Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp>				
820	830	840	850	860
* * *	* * *	* * *	* * *	* * *
CTC CAG CAT CAC TGT GTC ATC CAC GAC GCC TGG AGC GGC CTG AGG CAC				
Leu Gln His His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His>				
870	880	890	900	910
* * *	* * *	* * *	* * *	* * *
GTG GTG CAG CTT CGT GCC CAG GAG GAG TTC GGG CAA GGC GAG TGG AGC				
Val Val Gln Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser>				
920	930	940	950	960
* * *	* * *	* * *	* * *	* * *
GAG TGG AGC CCG GAG GCC ATG GGC ACG CCT TGG ACA GAA TCG CGA TCG				
Glu Trp Ser Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser>				
970	980	990	1000	
* * *	* * *	* * *	* * *	
CCT CCA GCT GAG AAC GAG GTG TCC ACC CCC ATG GAA CTT CTA GAC CCA				
Pro Pro Ala Glu Asn Glu Val Ser Thr Pro Met Glu Leu Leu Asp Pro>				
1010	1020	1030	1040	1050
* * *	* * *	* * *	* * *	* * *
TGT GGT TAT ATC AGT CCT GAA TCT CCA GTT GTA CAA CTT CAT TCT AAT				
Cys Gly Tyr Ile Ser Pro Glu Ser Pro Val Val Gln Leu His Ser Asn>				
1060	1070	1080	1090	1100
* * *	* * *	* * *	* * *	* * *
TTC ACT GCA GTT TGT GTG CTA AAG GAA AAA TGT ATG GAT TAT TTT CAT				
Phe Thr Ala Val Cys Val Leu Lys Glu Lys Cys Met Asp Tyr Phe His>				
1110	1120	1130	1140	1150
* * *	* * *	* * *	* * *	* * *
GTA AAT GCT AAT TAC ATT GTC TGG AAA ACA AAC CAT TTT ACT ATT CCT				
Val Asn Ala Asn Tyr Ile Val Trp Lys Thr Asn His Phe Thr Ile Pro>				
1160	1170	1180	1190	1200
* * *	* * *	* * *	* * *	* * *



36/60

Fig.25C.

AAG GAG CAA TAT ACT ATC ATA AAC AGA ACA GCA TCC AGT GTC ACC TTT
Lys Glu Gln Tyr Thr Ile Ile Asn Arg Thr Ala Ser Ser Val Thr Phe>

1210 1220 1230 1240
* * * * *
ACA GAT ATA GCT TCA TTA AAT ATT CAG CTC ACT TGC AAC ATT CTT ACA
Thr Asp Ile Ala Ser Leu Asn Ile Gln Leu Thr Cys Asn Ile Leu Thr>

1250 1260 1270 1280 1290
* * * * *
TTC GGA CAG CTT GAA CAG AAT GTT TAT GGA ATC ACA ATA ATT TCA GGC
Phe Gly Gln Leu Glu Gln Asn Val Tyr Gly Ile Thr Ile Ile Ser Gly>

1300 1310 1320 1330 1340
* * * * *
TTG CCT CCA GAA AAA CCT AAA AAT TTG AGT TGC ATT GTG AAC GAG GGG
Leu Pro Pro Glu Lys Pro Lys Asn Leu Ser Cys Ile Val Asn Glu Gly>

1350 1360 1370 1380 1390
* * * * *
AAG AAA ATG AGG TGT GAG TGG GAT GGT GGA AGG GAA ACA CAC TTG GAG
Lys Lys Met Arg Cys Glu Trp Asp Gly Gly Arg Glu Thr His Leu Glu>

1400 1410 1420 1430 1440
* * * * *
ACA AAC TTC ACT TTA AAA TCT GAA TGG GCA ACA CAC AAG TTT GCT GAT
Thr Asn Phe Thr Leu Lys Ser Glu Trp Ala Thr His Lys Phe Ala Asp>

1450 1460 1470 1480
* * * * *
TGC AAA GCA AAA CGT GAC ACC CCC ACC TCA TGC ACT GTT GAT TAT TCT
Cys Lys Ala Lys Arg Asp Thr Pro Thr Ser Cys Thr Val Asp Tyr Ser>

1490 1500 1510 1520 1530
* * * * *
ACT GTG TAT TTT GTC AAC ATT GAA GTC TGG GTA GAA GCA GAG AAT GCC
Thr Val Tyr Phe Val Asn Ile Glu Val Trp Val Glu Ala Glu Asn Ala>

1540 1550 1560 1570 1580
* * * * *
CTT GGG AAG GTT ACA TCA GAT CAT ATC AAT TTT GAT CCT GTA TAT AAA
Leu Gly Lys Val Thr Ser Asp His Ile Asn Phe Asp Pro Val Tyr Lys>

1590 1600 1610 1620 1630
* * * * *
GTG AAG CCC AAT CCG CCA CAT AAT TTA TCA GTG ATC AAC TCA GAG GAA
Val Lys Pro Asn Pro Pro His Asn Leu Ser Val Ile Asn Ser Glu Glu>

1640 1650 1660 1670 1680
* * * * *
CTG TCT AGT ATC TTA AAA TTG ACA TGG ACC AAC CCA AGT ATT AAG AGT
Leu Ser Ser Ile Leu Lys Leu Thr Trp Thr Asn Pro Ser Ile Lys Ser>

1690 1700 1710 1720
* * * * *
GTT ATA ATA CTA AAA TAT AAC ATT CAA TAT AGG ACC AAA GAT GCC TCA
Val Ile Ile Leu Lys Tyr Asn Ile Gln Tyr Arg Thr Lys Asp Ala Ser>

1730 1740 1750 1760 1770
* * * * *
ACT TGG AGC CAG ATT CCT CCT GAA GAC ACA GCA TCC ACC CGA TCT TCA
Thr Trp Ser Gln Ile Pro Pro Glu Asp Thr Ala Ser Thr Arg Ser Ser>



37/60

Fig.25D.

1780	1790	1800	1810	1820
* * *	* * *	* * *	* * *	* * *
TTC ACT GTC CAA GAC CTT AAA CCT TTT ACA GAA TAT GTG TTT AGG ATT				
Phe Thr Val Gln Asp Leu Lys Pro Phe Thr Glu Tyr Val Phe Arg Ile>				
1830	1840	1850	1860	1870
* * *	* * *	* * *	* * *	* * *
CGC TGT ATG AAG GAA GAT GGT AAG GGA TAC TGG AGT GAC TGG AGT GAA				
Arg Cys Met Lys Glu Asp Gly Lys Gly Tyr Trp Ser Asp Trp Ser Glu>				
1880	1890	1900	1910	1920
* * *	* * *	* * *	* * *	* * *
GAA GCA AGT GGG ATC ACC TAT GAA GAT AGA CCA TCT AAA GCA CCA AGT				
Glu Ala Ser Gly Ile Thr Tyr Glu Asp Arg Pro Ser Lys Ala Pro Ser>				
1930	1940	1950	1960	
* * *	* * *	* * *	* * *	
TTC TGG TAT AAA ATA GAT CCA TCC CAT ACT CAA GGC TAC AGA ACT GTA				
Phe Trp Tyr Lys Ile Asp Pro Ser His Thr Gln Gly Tyr Arg Thr Val>				
1970	1980	1990	2000	2010
* * *	* * *	* * *	* * *	* * *
CAA CTC GTG TGG AAG ACA TTG CCT CCT TTT GAA GCC AAT GGA AAA ATC				
Gln Leu Val Trp Lys Thr Leu Pro Pro Phe Glu Ala Asn Gly Lys Ile>				
2020	2030	2040	2050	2060
* * *	* * *	* * *	* * *	* * *
TTG GAT TAT GAA GTG ACT CTC ACA AGA TGG AAA TCA CAT TTA CAA AAT				
Leu Asp Tyr Glu Val Thr Leu Thr Arg Trp Lys Ser His Leu Gln Asn>				
2070	2080	2090	2100	2110
* * *	* * *	* * *	* * *	* * *
TAC ACA GTT AAT GCC ACA AAA CTG ACA GTA AAT CTC ACA AAT GAT CGC				
Tyr Thr Val Asn Ala Thr Lys Leu Thr Val Asn Leu Thr Asn Asp Arg>				
2120	2130	2140	2150	2160
* * *	* * *	* * *	* * *	* * *
TAT CTA GCA ACC CTA ACA GTA AGA AAT CTT GTT GGC AAA TCA GAT GCA				
Tyr Leu Ala Thr Leu Thr Val Arg Asn Leu Val Gly Lys Ser Asp Ala>				
2170	2180	2190	2200	
* * *	* * *	* * *	* * *	
GCT GTT TTA ACT ATC CCT GCC TGT GAC TTT CAA GCT ACT CAC CCT GTA				
Ala Val Leu Thr Ile Pro Ala Cys Asp Phe Gln Ala Thr His Pro Val>				
2210	2220	2230	2240	2250
* * *	* * *	* * *	* * *	* * *
ATG GAT CTT AAA GCA TTC CCC AAA GAT AAC ATG CTT TGG GTG GAA TGG				
Met Asp Leu Lys Ala Phe Pro Lys Asp Asn Met Leu Trp Val Glu Trp>				
2260	2270	2280	2290	2300
* * *	* * *	* * *	* * *	* * *
ACT ACT CCA AGG GAA TCT GTA AAG AAA TAT ATA CTT GAG TGG TGT GTG				
Thr Thr Pro Arg Glu Ser Val Lys Lys Tyr Ile Leu Glu Trp Cys Val>				
2310	2320	2330	2340	2350
* * *	* * *	* * *	* * *	* * *
TTA TCA GAT AAA GCA CCC TGT ATC ACA GAC TGG CAA CAA GAA GAT GGT				
Leu Ser Asp Lys Ala Pro Cys Ile Thr Asp Trp Gln Gln Glu Asp Gly>				
2360	2370	2380	2390	2400



38/60

Fig.25E.

```
* * * * *
ACC GTG CAT CGC ACC TAT TTA AGA GGG AAC TTA GCA GAG AGC AAA TGC
Thr Val His Arg Thr Tyr Leu Arg Gly Asn Leu Ala Glu Ser Lys Cys>

      2410      2420      2430      2440
* * * * *
TAT TTG ATA ACA GTT ACT CCA GTA TAT GCT GAT GGA CCA GGA AGC CCT
Tyr Leu Ile Thr Val Thr Pro Val Tyr Ala Asp Gly Pro Gly Ser Pro>

2450      2460      2470      2480      2490
* * * * *
GAA TCC ATA AAG GCA TAC CTT AAA CAA GCT CCA CCT TCC AAA GGA CCT
Glu Ser Ile Lys Ala Tyr Leu Lys Gln Ala Pro Pro Ser Lys Gly Pro>

      2500      2510      2520      2530      2540
* * * * *
ACT GTT CGG ACA AAA AAA GTA GGG AAA AAC GAA GCT GTC TTA GAG TGG
Thr Val Arg Thr Lys Lys Val Gly Lys Asn Glu Ala Val Leu Glu Trp>

      2550      2560      2570      2580      2590
* * * * *
GAC CAA CTT CCT GTT GAT GTT CAG AAT GGA TTT ATC AGA AAT TAT ACT
Asp Gln Leu Pro Val Asp Val Gln Asn Gly Phe Ile Arg Asn Tyr Thr>

      2600      2610      2620      2630      2640
* * * * *
ATA TTT TAT AGA ACC ATC ATT GGA AAT GAA ACT GCT GTG AAT GTG GAT
Ile Phe Tyr Arg Thr Ile Ile Gly Asn Glu Thr Ala Val Asn Val Asp>

      2650      2660      2670      2680
* * * * *
TCT TCC CAC ACA GAA TAT ACA TTG TCC TCT TTG ACT AGT GAC ACA TTG
Ser Ser His Thr Glu Tyr Thr Leu Ser Ser Leu Thr Ser Asp Thr Leu>

2690      2700      2710      2720      2730
* * * * *
TAC ATG GTA CGA ATG GCA GCA TAC ACA GAT GAA GGT GGG AAG GAT GGT
Tyr Met Val Arg Met Ala Ala Tyr Thr Asp Glu Gly Gly Lys Asp Gly>

      2740      2750      2760      2770      2780
* * * * *
CCA GAA TTC ACT TTT ACT ACC CCA AAG TTT GCT CAA GGA GAA ATT GAA
Pro Glu Phe Thr Phe Thr Thr Pro Lys Phe Ala Gln Gly Glu Ile Glu>

      2790      2800      2810      2820      2830
* * * * *
TCC GGG GGC GAC AAA ACT CAC ACA TGC CCA CCG TGC CCA GCA CCT GAA
Ser Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu>

      2840      2850      2860      2870      2880
* * * * *
CTC CTG GGG GGA CCG TCA GTC TTC CTC TTC CCC CCA AAA CCC AAG GAC
Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp>

      2890      2900      2910      2920
* * * * *
ACC CTC ATG ATC TCC CGG ACC CCT GAG GTC ACA TGC GTG GTG GTG GAC
Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp>

2930      2940      2950      2960      2970
* * * * *
GTG AGC CAC GAA GAC CCT GAG GTC AAG TTC AAC TGG TAC GTG GAC GGC
```




39/60

Fig.25F.

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly>

2980 2990 3000 3010 3020
* * * * *
GTG GAG GTG CAT AAT GCC AAG ACA AAG CCG CGG GAG GAG CAG TAC AAC
Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn>

3030 3040 3050 3060 3070
* * * * *
AGC ACG TAC CGT GTG GTC AGC GTC CTC ACC GTC CTG CAC CAG GAC TGG
Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp>

3080 3090 3100 3110 3120
* * * * *
CTG AAT GGC AAG GAG TAC AAG TGC AAG GTC TCC AAC AAA GCC CTC CCA
Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro>

3130 3140 3150 3160
* * * *
GCC CCC ATC GAG AAA ACC ATC TCC AAA GCC AAA GGG CAG CCC CGA GAA
Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu>

3170 3180 3190 3200 3210
* * * * *
CCA CAG GTG TAC ACC CTG CCC CCA TCC CGG GAT GAG CTG ACC AAG AAC
Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn>

3220 3230 3240 3250 3260
* * * * *
CAG GTC AGC CTG ACC TGC CTG GTC AAA GGC TTC TAT CCC AGC GAC ATC
Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile>

3270 3280 3290 3300 3310
* * * * *
GCC GTG GAG TGG GAG AGC AAT GGG CAG CCG GAG AAC AAC TAC AAG ACC
Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr>

3320 3330 3340 3350 3360
* * * * *
ACG CCT CCC GTG CTG GAC TCC GAC GGC TCC TTC TTC CTC TAC AGC AAG
Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys>

3370 3380 3390 3400
* * * *
CTC ACC GTG GAC AAG AGC AGG TGG CAG CAG GGG AAC GTC TTC TCA TGC
Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys>

3410 3420 3430 3440 3450
* * * * *
TCC GTG ATG CAT GAG GCT CTG CAC AAC CAC TAC ACG CAG AAG AGC CTC
Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu>

3460 3470
* *
TCC CTG TCT CCG GGT AAA TGA
Ser Leu Ser Pro Gly Lys ***>



40/60

Fig.26A.

			10				20				30				40			
	*		*		*		*		*		*		*		*		*	
ATG	GTG	CTT	CTG	TGG	TGT	GTA	GTG	AGT	CTC	TAC	TTT	TAT	GGA	ATC	CTG			
Met	Val	Leu	Leu	Trp	Cys	Val	Val	Ser	Leu	Tyr	Phe	Tyr	Gly	Ile	Leu>			
50			60				70				80				90			
*		*	*		*		*		*		*		*		*		*	
CAA	AGT	GAT	GCC	TCA	GAA	CGC	TGC	GAT	GAC	TGG	GGA	CTA	GAC	ACC	ATG			
Gln	Ser	Asp	Ala	Ser	Glu	Arg	Cys	Asp	Asp	Trp	Gly	Leu	Asp	Thr	Met>			
100			110				120				130				140			
*		*	*		*		*		*		*		*		*		*	
AGG	CAA	ATC	CAA	GTG	TTT	GAA	GAT	GAG	CCA	GCT	CGC	ATC	AAG	TGC	CCA			
Arg	Gln	Ile	Gln	Val	Phe	Glu	Asp	Glu	Pro	Ala	Arg	Ile	Lys	Cys	Pro>			
150			160				170				180				190			
*	*		*		*		*		*		*		*		*		*	
CTC	TTT	GAA	CAC	TTC	TTG	AAA	TTC	AAC	TAC	AGC	ACA	GCC	CAT	TCA	GCT			
Leu	Phe	Glu	His	Phe	Leu	Lys	Phe	Asn	Tyr	Ser	Thr	Ala	His	Ser	Ala>			
200			210				220				230				240			
*	*		*		*		*		*		*		*		*		*	
GGC	CTT	ACT	CTG	ATC	TGG	TAT	TGG	ACT	AGG	CAG	GAC	CGG	GAC	CTT	GAG			
Gly	Leu	Thr	Leu	Ile	Trp	Tyr	Trp	Thr	Arg	Gln	Asp	Arg	Asp	Leu	Glu>			
250			260				270				280							
*	*		*		*		*		*		*		*		*		*	
GAG	CCA	ATT	AAC	TTC	CGC	CTC	CCC	GAG	AAC	CGC	ATT	AGT	AAG	GAG	AAA			
Glu	Pro	Ile	Asn	Phe	Arg	Leu	Pro	Glu	Asn	Arg	Ile	Ser	Lys	Glu	Lys>			
290			300				310				320				330			
*	*		*		*		*		*		*		*		*		*	
GAT	GTG	CTG	TGG	TTC	CGG	CCC	ACT	CTC	CTC	AAT	GAC	ACT	GGC	AAC	TAT			
Asp	Val	Leu	Trp	Phe	Arg	Pro	Thr	Leu	Leu	Asn	Asp	Thr	Gly	Asn	Tyr>			
340			350				360				370				380			
*	*		*		*		*		*		*		*		*		*	
ACC	TGC	ATG	TTA	AGG	AAC	ACT	ACA	TAT	TGC	AGC	AAA	GTT	GCA	TTT	CCC			
Thr	Cys	Met	Leu	Arg	Asn	Thr	Thr	Tyr	Cys	Ser	Lys	Val	Ala	Phe	Pro>			
390			400				410				420				430			
*	*		*		*		*		*		*		*		*		*	
TTG	GAA	GTT	GTT	CAA	AAA	GAC	AGC	TGT	TTC	AAT	TCC	CCC	ATG	AAA	CTC			
Leu	Glu	Val	Val	Gln	Lys	Asp	Ser	Cys	Phe	Asn	Ser	Pro	Met	Lys	Leu>			
440			450				460				470				480			
*	*		*		*		*		*		*		*		*		*	
CCA	GTG	CAT	AAA	CTG	TAT	ATA	GAA	TAT	GGC	ATT	CAG	AGG	ATC	ACT	TGT			
Pro	Val	His	Lys	Leu	Tyr	Ile	Glu	Tyr	Gly	Ile	Gln	Arg	Ile	Thr	Cys>			
490			500				510				520							
*	*		*		*		*		*		*		*		*		*	
CCA	AAT	GTA	GAT	GGA	TAT	TTT	CCT	TCC	AGT	GTC	AAA	CCG	ACT	ATC	ACT			
Pro	Asn	Val	Asp	Gly	Tyr	Phe	Pro	Ser	Ser	Val	Lys	Pro	Thr	Ile	Thr>			
530			540				550				560				570			
*	*		*		*		*		*		*		*		*		*	
TGG	TAT	ATG	GGC	TGT	TAT	AAA	ATA	CAG	AAT	TTT	AAT	AAT	GTA	ATA	CCC			
Trp	Tyr	Met	Gly	Cys	Tyr	Lys	Ile	Gln	Asn	Phe	Asn	Asn	Val	Ile	Pro>			



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Fig.26B.

580	590	600	610	620
* * *	* * *	* * *	* * *	* * *
GAA GGT ATG AAC TTG AGT TTC CTC ATT GCC TTA ATT TCA AAT AAT GGA				
Glu Gly Met Asn Leu Ser Phe Leu Ile Ala Leu Ile Ser Asn Asn Gly>				
630	640	650	660	670
* * *	* * *	* * *	* * *	* * *
AAT TAC ACA TGT GTT GTT ACA TAT CCA GAA AAT GGA CGT ACG TTT CAT				
Asn Tyr Thr Cys Val Val Thr Tyr Pro Glu Asn Gly Arg Thr Phe His>				
680	690	700	710	720
* * *	* * *	* * *	* * *	* * *
CTC ACC AGG ACT CTG ACT GTA AAG GTA GTA GGC TCT CCA AAA AAT GCA				
Leu Thr Arg Thr Leu Thr Val Lys Val Val Gly Ser Pro Lys Asn Ala>				
730	740	750	760	
* * *	* * *	* * *	* * *	
GTG CCC CCT GTG ATC CAT TCA CCT AAT GAT CAT GTG GTC TAT GAG AAA				
Val Pro Pro Val Ile His Ser Pro Asn Asp His Val Val Tyr Glu Lys>				
770	780	790	800	810
* * *	* * *	* * *	* * *	* * *
GAA CCA GGA GAG GAG CTA CTC ATT CCC TGT ACG GTC TAT TTT AGT TTT				
Glu Pro Gly Glu Glu Leu Leu Ile Pro Cys Thr Val Tyr Phe Ser Phe>				
820	830	840	850	860
* * *	* * *	* * *	* * *	* * *
CTG ATG GAT TCT CGC AAT GAG GTT TGG TGG ACC ATT GAT GGA AAA AAA				
Leu Met Asp Ser Arg Asn Glu Val Trp Trp Thr Ile Asp Gly Lys Lys>				
870	880	890	900	910
* * *	* * *	* * *	* * *	* * *
CCT GAT GAC ATC ACT ATT GAT GTC ACC ATT AAC GAA AGT ATA AGT CAT				
Pro Asp Asp Ile Thr Ile Asp Val Thr Ile Asn Glu Ser Ile Ser His>				
920	930	940	950	960
* * *	* * *	* * *	* * *	* * *
AGT AGA ACA GAA GAT GAA ACA AGA ACT CAG ATT TTG AGC ATC AAG AAA				
Ser Arg Thr Glu Asp Glu Thr Arg Thr Gln Ile Leu Ser Ile Lys Lys>				
970	980	990	1000	
* * *	* * *	* * *	* * *	
GTT ACC TCT GAG GAT CTC AAG CGC AGC TAT GTC TGT CAT GCT AGA AGT				
Val Thr Ser Glu Asp Leu Lys Arg Ser Tyr Val Cys His Ala Arg Ser>				
1010	1020	1030	1040	1050
* * *	* * *	* * *	* * *	* * *
GCC AAA GGC GAA GTT GCC AAA GCA GCC AAG GTG AAG CAG AAA GTG CCA				
Ala Lys Gly Glu Val Ala Lys Ala Ala Lys Val Lys Gln Lys Val Pro>				
1060	1070	1080	1090	1100
* * *	* * *	* * *	* * *	* * *
GCT CCA AGA TAC ACA GTG TCC GGT GGC GCG CCT ATG CTG AGC GAG GCT				
Ala Pro Arg Tyr Thr Val Ser Gly Gly Ala Pro Met Leu Ser Glu Ala>				
1110	1120	1130	1140	1150
* * *	* * *	* * *	* * *	* * *
GAT AAA TGC AAG GAA CGT GAA GAA AAA ATA ATT TTA GTG TCA TCT GCA				
Asp Lys Cys Lys Glu Arg Glu Glu Lys Ile Ile Leu Val Ser Ser Ala>				
1160	1170	1180	1190	1200
* * *	* * *	* * *	* * *	* * *



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Fig.26C.

AAT	GAA	ATT	GAT	GTT	CGT	CCC	TGT	CCT	CTT	AAC	CCA	AAT	GAA	CAC	AAA
Asn	Glu	Ile	Asp	Val	Arg	Pro	Cys	Pro	Leu	Asn	Pro	Asn	Glu	His	Lys>

1210	1220	1230	1240
*	*	*	*
GGC	ACT	ATA	ACT
Gly	Thr	Ile	Thr
TGG	TAT	AAG	GAT
Trp	Tyr	Lys	Asp
GAC	AGC	AAG	ACA
Asp	Ser	Lys	Thr
CCT	GTA	TCT	ACA
Pro	Val	Ser	Thr>

1250	1260	1270	1280	1290
*	*	*	*	*
GAA	CAA	GCC	TCC	AGG
Glu	Gln	Ala	Ser	Arg
ATT	CAT	CAA	CAC	AAA
Ile	His	Gln	His	Lys
GAG	AAA	GAG	AAA	CTT
Lys	Glu	Lys	Leu	Trp
TTT	GTT	TTT	GTT	Val>

1300	1310	1320	1330	1340
*	*	*	*	*
CCT	GCT	AAG	GTG	GAG
Pro	Ala	Lys	Val	Glu
GAT	TCA	GGA	CAT	TAC
Asp	Ser	Gly	His	Tyr
TAT	TGC	GTG	GTA	AGA
Tyr	Cys	Val	Val	Arg
AAT	Asn>			

1350	1360	1370	1380	1390
*	*	*	*	*
TCA	TCT	TAC	TGC	CTC
Ser	Ser	Tyr	Cys	Leu
AGA	ATT	AAA	ATA	AGT
Arg	Ile	Lys	Ile	Ser
GCA	AAA	TTT	GTG	GAG
Ala	Lys	Phe	Val	Glu
AAT	Asn>			

1400	1410	1420	1430	1440
*	*	*	*	*
GAG	CCT	AAC	TTA	TGT
Glu	Pro	Asn	Leu	Cys
TAT	AAT	GCA	CAA	GCC
Tyr	Asn	Ala	Gln	Ala
ATA	TTT	AAG	CAG	AAA
Ile	Phe	Lys	Gln	Lys
CTA	Leu>			

1450	1460	1470	1480
*	*	*	*
CCC	GTT	GCA	GGA
Pro	Val	Ala	Gly
GAC	GGA	GGA	CTT
Asp	Gly	Gly	Leu
GTG	TGC	CCT	TAT
Val	Cys	Pro	Tyr
ATG	GAG	TTT	TTT
Met	Glu	Phe	Phe>

1490	1500	1510	1520	1530
*	*	*	*	*
AAA	AAT	GAA	AAT	AAT
Lys	Asn	Glu	Asn	Asn
GAG	TTA	CCT	AAA	TTA
Glu	Leu	Pro	Lys	Leu
TGG	TAT	AAG	GAT	TGC
Trp	Tyr	Lys	Asp	Cys>

1540	1550	1560	1570	1580
*	*	*	*	*
AAA	CCT	CTA	CTT	CTT
Lys	Pro	Leu	Leu	Leu
GAC	AAT	ATA	CAC	TTT
Asp	Asn	Ile	His	Phe
AGT	GGA	GTC	AAA	GAT
Ser	Gly	Val	Lys	Asp
AGG	Arg>			

1590	1600	1610	1620	1630
*	*	*	*	*
CTC	ATC	GTG	ATG	AAT
Leu	Ile	Val	Met	Asn
GTG	GCT	GAA	AAG	CAT
Val	Ala	Glu	Lys	His
AGA	GGG	AAC	TAT	ACT
Arg	Gly	Asn	Tyr	Thr
TGT	Cys>			

1640	1650	1660	1670	1680
*	*	*	*	*
CAT	GCA	TCC	TAC	ACA
His	Ala	Ser	Tyr	Thr
TAC	TTG	GGC	AAG	CAA
Tyr	Leu	Gly	Lys	Gln
TAT	CCT	ATT	ACC	CGG
Tyr	Pro	Ile	Thr	Arg
GTA	Val>			

1690	1700	1710	1720
*	*	*	*
ATA	GAA	TTT	ATT
Ile	Glu	Phe	Ile
ACT	CTA	GAG	GAA
Thr	Leu	Glu	Glu
AAC	AAA	CCC	ACA
Asn	Lys	Pro	Thr
AGG	CCT	GTG	ATT
Arg	Pro	Val	Ile>

1730	1740	1750	1760	1770
*	*	*	*	*
GTG	AGC	CCA	GCT	AAT
Val	Ser	Pro	Ala	Asn
GAG	ACA	ATG	GAA	GTA
Glu	Thr	Met	Glu	Val
GAC	TTG	GGA	TCC	CAG
Asp	Leu	Gly	Ser	Gln
ATA	Ile>			



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Fig.26D.

1780	1790	1800	1810	1820
* * *	* * *	* * *	* * *	* * *
CAA TTG ATC TGT AAT GTC ACC GGC CAG TTG AGT GAC ATT GCT TAC TGG				
Gln Leu Ile Cys Asn Val Thr Gly Gln Leu Ser Asp Ile Ala Tyr Trp>				
1830	1840	1850	1860	1870
* * *	* * *	* * *	* * *	* * *
AAG TGG AAT GGG TCA GTA ATT GAT GAA GAT GAC CCA GTG CTA GGG GAA				
Lys Trp Asn Gly Ser Val Ile Asp Glu Asp Asp Pro Val Leu Gly Glu>				
1880	1890	1900	1910	1920
* * *	* * *	* * *	* * *	* * *
GAC TAT TAC AGT GTG GAA AAT CCT GCA AAC AAA AGA AGG AGT ACC CTC				
Asp Tyr Tyr Ser Val Glu Asn Pro Ala Asn Lys Arg Arg Ser Thr Leu>				
1930	1940	1950	1960	
* * *	* * *	* * *	* * *	
ATC ACA GTG CTT AAT ATA TCG GAA ATT GAG AGT AGA TTT TAT AAA CAT				
Ile Thr Val Leu Asn Ile Ser Glu Ile Glu Ser Arg Phe Tyr Lys His>				
1970	1980	1990	2000	2010
* * *	* * *	* * *	* * *	* * *
CCA TTT ACC TGT TTT GCC AAG AAT ACA CAT GGT ATA GAT GCA GCA TAT				
Pro Phe Thr Cys Phe Ala Lys Asn Thr His Gly Ile Asp Ala Ala Tyr>				
2020	2030	2040	2050	2060
* * *	* * *	* * *	* * *	* * *
ATC CAG TTA ATA TAT CCA GTC ACT AAT TCC GGA GAC AAA ACT CAC ACA				
Ile Gln Leu Ile Tyr Pro Val Thr Asn Ser Gly Asp Lys Thr His Thr>				
2070	2080	2090	2100	2110
* * *	* * *	* * *	* * *	* * *
TGC CCA CCG TGC CCA GCA CCT GAA CTC CTG GGG GGA CCG TCA GTC TTC				
Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe>				
2120	2130	2140	2150	2160
* * *	* * *	* * *	* * *	* * *
CTC TTC CCC CCA AAA CCC AAG GAC ACC CTC ATG ATC TCC CGG ACC CCT				
Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro>				
2170	2180	2190	2200	
* * *	* * *	* * *	* * *	
GAG GTC ACA TGC GTG GTG GTG GAC GTG AGC CAC GAA GAC CCT GAG GTC				
Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val>				
2210	2220	2230	2240	2250
* * *	* * *	* * *	* * *	* * *
AAG TTC AAC TGG TAC GTG GAC GGC GTG GAG GTG CAT AAT GCC AAG ACA				
Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr>				
2260	2270	2280	2290	2300
* * *	* * *	* * *	* * *	* * *
AAG CCG CCG GAG GAG CAG TAC AAC AGC ACG TAC CGT GTG GTC AGC GTC				
Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val>				
2310	2320	2330	2340	2350
* * *	* * *	* * *	* * *	* * *
CTC ACC GTC CTG CAC CAG GAC TGG CTG AAT GGC AAG GAG TAC AAG TGC				
Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys>				
2360	2370	2380	2390	2400



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Fig.26E.

*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAG	GTC	TCC	AAC	AAA	GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC
Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser>
		2410				2420				2430				2440	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA	CCA	CAG	GTG	TAC	ACC	CTG	CCC	CCA
Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro>
2450			2460				2470			2480			2490		
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TCC	CGG	GAG	GAG	ATG	ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC	TGC	CTG	GTC
Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val>
	2500			2510			2520			2530			2540		
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG
Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly>
	2550			2560			2570			2580			2590		
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CAG	CCG	GAG	AAC	AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC
Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp>
	2600			2610			2620			2630			2640		
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GGC	TCC	TTC	TTC	CTC	TAT	AGC	AAG	CTC	ACC	GTG	GAC	AAG	AGC	AGG	TGG
Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp>
	2650			2660			2670			2680					
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT	GAG	GCT	CTG	CAC
Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His>
2690		2700			2710			2720			2730				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAC	CAC	TAC	ACG	CAG	AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA	
Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys	***>	



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Fig.27.

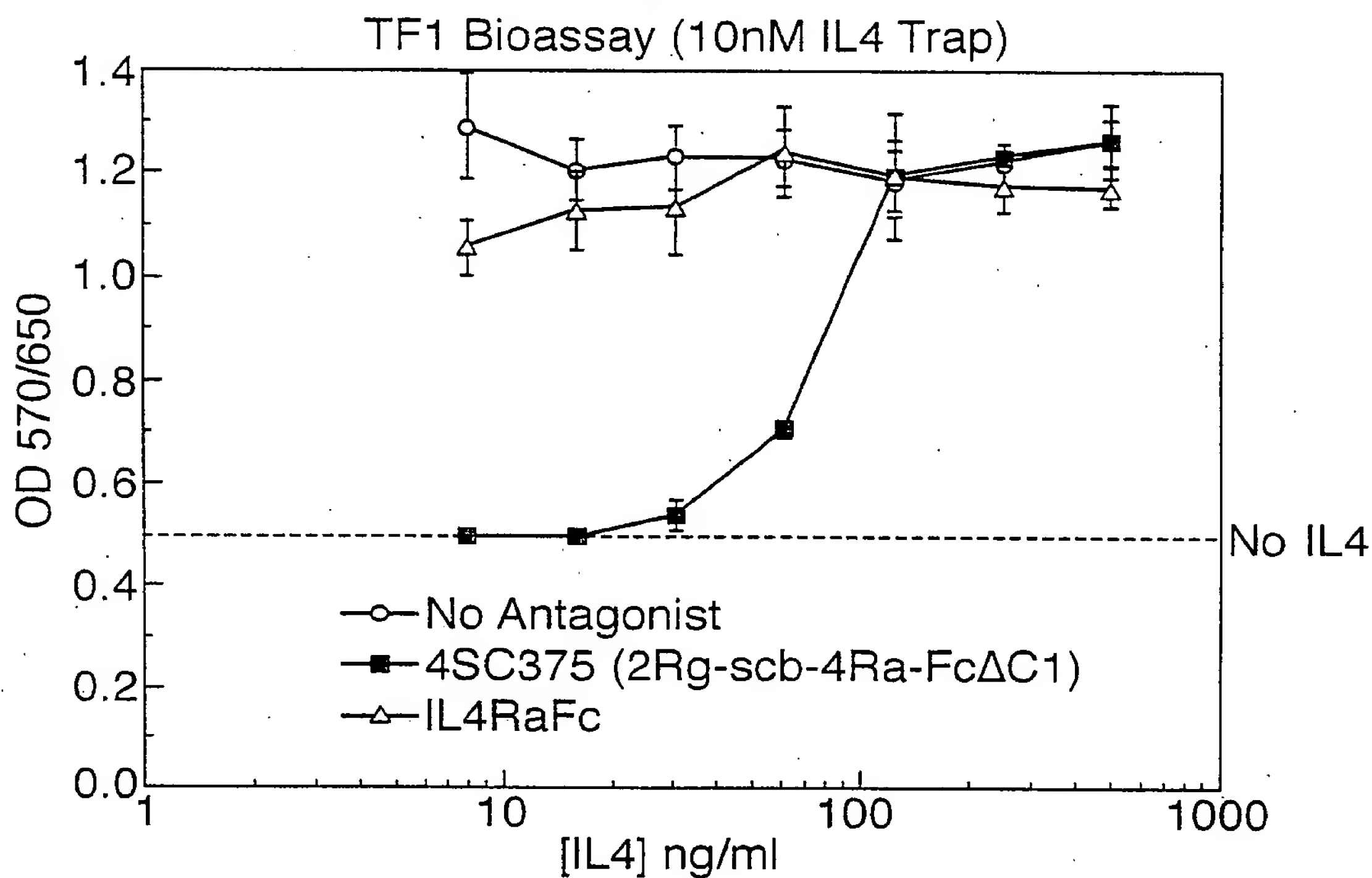
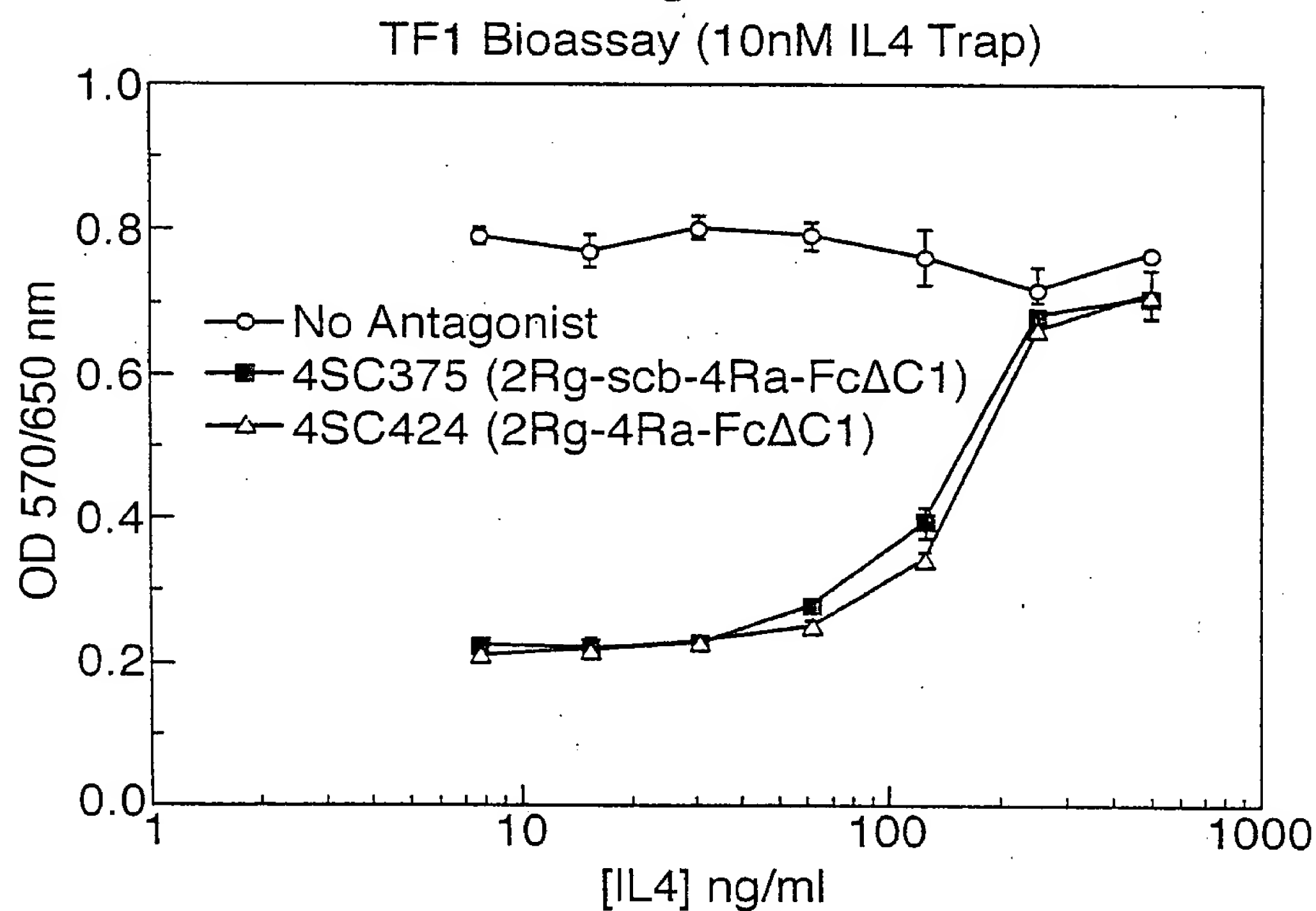


Fig.28.





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Fig.29.

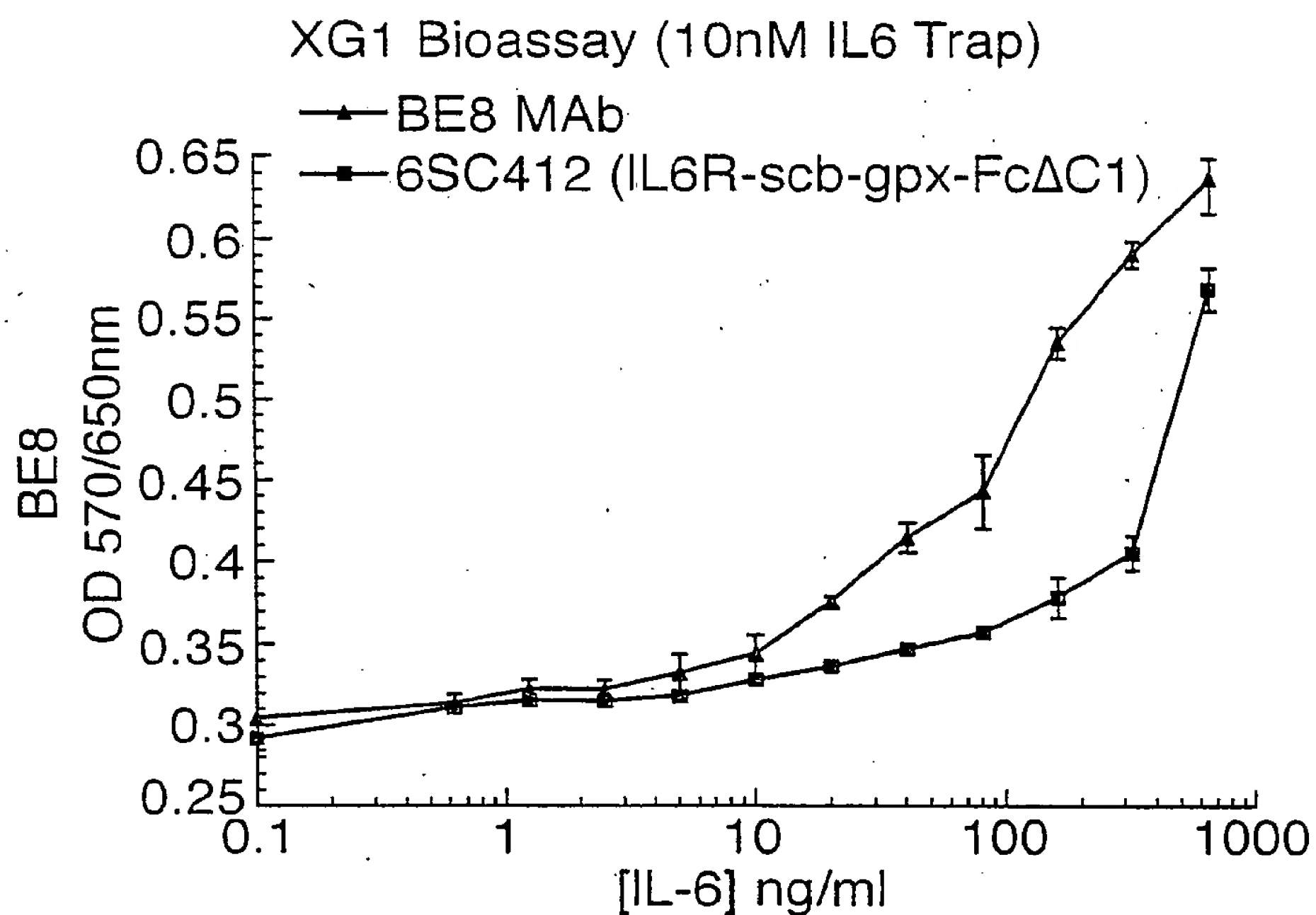
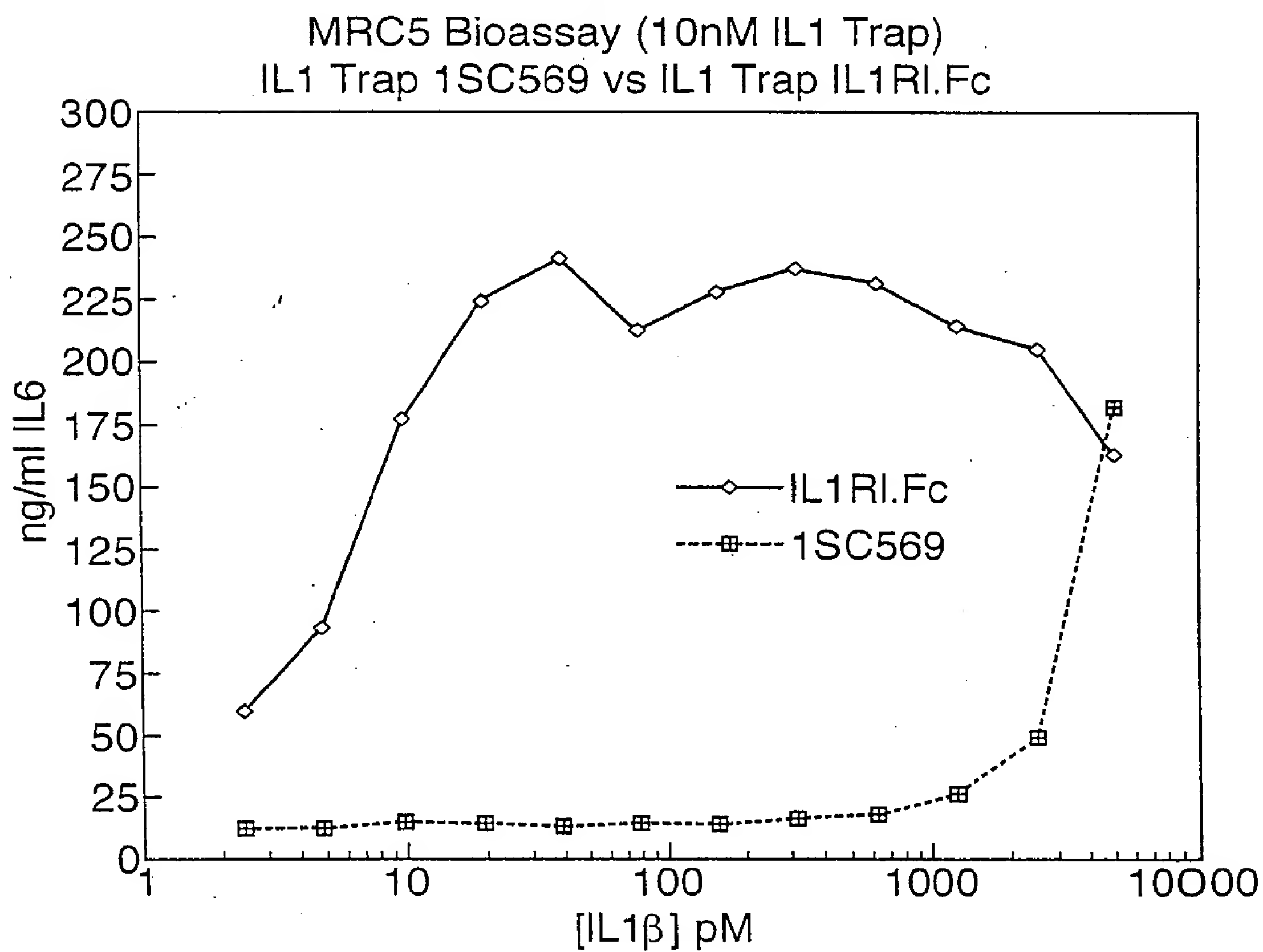


Fig.30.

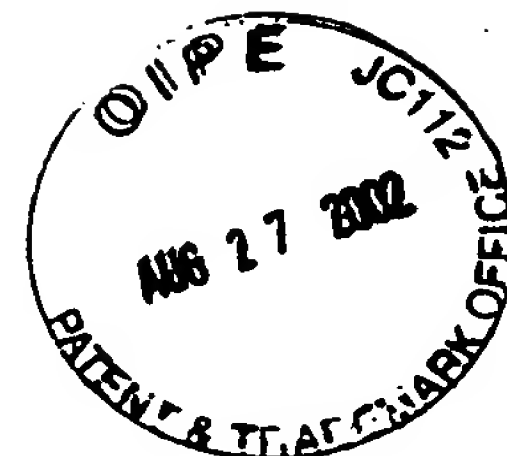




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Fig.31A.

			10				20				30				40			
	*		*		*		*		*		*		*		*		*	
ATG	GTG	TGG	CTT	TGC	TCT	GGG	CTC	CTG	TTC	CCT	GTG	AGC	TGC	CTG	GTC			
TAC	CAC	ACC	GAA	ACG	AGA	CCC	GAG	GAC	AAG	GGA	CAC	TCG	ACG	GAC	CAG			
Met	Val	Trp	Leu	Cys	Ser	Gly	Leu	Leu	Phe	Pro	Val	Ser	Cys	Leu	Val>			
50			60				70				80				90			
*		*	*		*		*		*		*		*		*		*	
CTG	CTG	CAG	GTG	GCA	AGC	TCT	GGG	AAC	ATG	AAG	GTC	TTG	CAG	GAG	CCC			
GAC	GAC	GTC	CAC	CGT	TCG	AGA	CCC	TTG	TAC	TTC	CAG	AAC	GTC	CTC	GGG			
Leu	Leu	Gln	Val	Ala	Ser	Ser	Gly	Asn	Met	Lys	Val	Leu	Gln	Glu	Pro>			
100			110				120				130				140			
*		*	*		*		*		*		*		*		*		*	
ACC	TGC	GTC	TCC	GAC	TAC	ATG	AGC	ATC	TCT	ACT	TGC	GAG	TGG	AAG	ATG			
TGG	ACG	CAG	AGG	CTG	ATG	TAC	TCG	TAG	AGA	TGA	ACG	CTC	ACC	TTC	TAC			
Thr	Cys	Val	Ser	Asp	Tyr	Met	Ser	Ile	Ser	Thr	Cys	Glu	Trp	Lys	Met>			
150			160				170				180				190			
*	*		*		*		*		*		*		*		*		*	
AAT	GGT	CCC	ACC	AAT	TGC	AGC	ACC	GAG	CTC	CGC	CTG	TTG	TAC	CAG	CTG			
TTA	CCA	GGG	TGG	TTA	ACG	TCG	TGG	CTC	GAG	GCG	GAC	AAC	ATG	GTC	GAC			
Asn	Gly	Pro	Thr	Asn	Cys	Ser	Thr	Glu	Leu	Arg	Leu	Leu	Tyr	Gln	Leu>			
200			210				220				230				240			
*	*		*		*		*		*		*		*		*		*	
GTT	TTT	CTG	CTC	TCC	GAA	GCC	CAC	ACG	TGT	ATC	CCT	GAG	AAC	AAC	GGA			
CAA	AAA	GAC	GAG	AGG	CTT	CGG	GTG	TGC	ACA	TAG	GGA	CTC	TTG	TTG	CCT			
Val	Phe	Leu	Leu	Ser	Glu	Ala	His	Thr	Cys	Ile	Pro	Glu	Asn	Asn	Gly>			
250			260				270				280							
*	*		*		*		*		*		*		*		*		*	
GGC	GCG	GGG	TGC	GTG	TGC	CAC	CTG	CTC	ATG	GAT	GAC	GTG	GTC	AGT	GCG			
CCG	GCG	CCC	ACG	CAC	ACG	GTG	GAC	GAG	TAC	CTA	CTG	CAC	CAG	TCA	GCG			
Gly	Ala	Gly	Cys	Val	Cys	His	Leu	Leu	Met	Asp	Asp	Val	Val	Ser	Ala>			
290			300				310				320				330			
*	*		*		*		*		*		*		*		*		*	
GAT	AAC	TAT	ACA	CTG	GAC	CTG	TGG	GCT	GGG	CAG	CAG	CTG	CTG	TGG	AAG			
CTA	TTG	ATA	TGT	GAC	CTG	GAC	ACC	CGA	CCC	GTC	GTC	GAC	GAC	ACC	TTC			
Asp	Asn	Tyr	Thr	Leu	Asp	Leu	Trp	Ala	Gly	Gln	Gln	Leu	Leu	Trp	Lys>			
340			350				360				370				380			
*	*		*		*		*		*		*		*		*		*	
GGC	TCC	TTC	AAG	CCC	AGC	GAG	CAT	GTG	AAA	CCC	AGG	GCC	CCA	GGA	AAC			
CCG	AGG	AAG	TTC	GGG	TCG	CTC	GTA	CAC	TTT	GGG	TCC	CGG	GGT	CCT	TTG			
Gly	Ser	Phe	Lys	Pro	Ser	Glu	His	Val	Lys	Pro	Arg	Ala	Pro	Gly	Asn>			



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Fig.31B.

390	400	410	420	430
* * *	* *	* *	* *	* *
CTG ACA GTT CAC	ACC AAT GTC TCC	GAC ACT CTG CTG	CTG ACC TGG	AGC
GAC TGT CAA GTG	TGG TTA CAG AGG	CTG TGA GAC GAC	GAC TGG ACC	TCG
Leu Thr Val His	Thr Asn Val Ser	Asp Thr Leu Leu	Leu Thr Trp	Ser>
440	450	460	470	480
* *	* *	* *	* *	* *
AAC CCG TAT CCC	CCT GAC AAT TAC	CTG TAT AAT CAT	CTC ACC TAT	GCA
TTG GGC ATA GGG	GGA CTG TTA ATG	GAC ATA TTA GTA	GAG TGG ATA	CGT
Asn Pro Tyr Pro	Pro Asp Asn Tyr	Leu Tyr Asn His	Leu Thr Tyr	Ala>
490	500	510	520	
* *	* *	* *	* *	
GTC AAC ATT TGG	AGT GAA AAC GAC	CCG GCA GAT TTC	AGA ATC TAT	AAC
CAG TTG TAA ACC	TCA CTT TTG CTG	GGC CGT CTA AAG	TCT TAG ATA	TTG
Val Asn Ile Trp	Ser Glu Asn Asp	Pro Ala Asp Phe	Arg Ile Tyr	Asn>
530	540	550	560	570
* *	* *	* *	* *	* *
GTG ACC TAC CTA	GAA CCC TCC CTC	CGC ATC GCA GCC	AGC ACC CTG	AAG
CAC TGG ATG GAT	CTT GGG AGG GAG	GCG TAG CGT CGG	TCG TGG GAC	TTC
Val Thr Tyr Leu	Glu Pro Ser Leu	Arg Ile Ala Ala	Ser Thr Leu	Lys>
580	590	600	610	620
* *	* *	* *	* *	* *
TCT GGG ATT TCC	TAC AGG GCA CGG	GTG AGG GCC TGG	GCT CAG AGC	TAT
AGA CCC TAA AGG	ATG TCC CGT GCC	CAC TCC CGG ACC	CGA GTC TCG	ATA
Ser Gly Ile Ser	Tyr Arg Ala Arg	Val Arg Ala Trp	Ala Gln Ser	Tyr>
630	640	650	660	670
* *	* *	* *	* *	* *
AAC ACC ACC TGG	AGT GAG TGG AGC	CCC AGC ACC AAG	TGG CAC AAC	TCC
TTG TGG TGG ACC	TCA CTC ACC TCG	GGG TCG TGG TTC	ACC GTG TTG	AGG
Asn Thr Thr Trp	Ser Glu Trp Ser	Pro Ser Thr Lys	Trp His Asn	Ser>
680	690	700	710	720
* *	* *	* *	* *	* *
TAC AGG GAG CCC	TTC GAG CAG TCC	GGT GGG GGC GGG	GGC GCC GCG	CCT
ATG TCC CTC GGG	AAG CTC GTC AGG	CCA CCC CCG CCC	CCG CGG CGC	GGA
Tyr Arg Glu Pro	Phe Glu Gln Ser	Gly Gly Gly Gly	Gly Ala Ala	Pro>
730	740	750	760	
* *	* *	* *	* *	
ACG GAA ACT CAG	CCA CCT GTG ACA	AAT TTG AGT GTC	TCT GTT GAA	AAC
TGC CTT TGA GTC	GGT GGA CAC TGT	TTA AAC TCA CAG	AGA CAA CTT	TTG
Thr Glu Thr Gln	Pro Pro Val Thr	Asn Leu Ser Val	Ser Val Glu	Asn>

Fig.31C.

770	780					790					800					810				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*					
CTC	TGC	ACA	GTA	ATA	TGG	ACA	TGG	AAT	CCA	CCC	GAG	GGA	GCC	AGC	TCA					
GAG	ACG	TGT	CAT	TAT	ACC	TGT	ACC	TTA	GGT	GGG	CTC	CCT	CGG	TCG	AGT					
Leu	Cys	Thr	Val	Ile	Trp	Thr	Trp	Asn	Pro	Pro	Glu	Gly	Ala	Ser	Ser>					
820			830			840			850			860								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
AAT	TGT	AGT	CTA	TGG	TAT	TTT	AGT	CAT	TTT	GGC	GAC	AAA	CAA	GAT	AAG					
TTA	ACA	TCA	GAT	ACC	ATA	AAA	TCA	GTA	AAA	CCG	CTG	TTT	GTT	CTA	TTC					
Asn	Cys	Ser	Leu	Trp	Tyr	Phe	Ser	His	Phe	Gly	Asp	Lys	Gln	Asp	Lys>					
870			880			890			900			910								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
AAA	ATA	GCT	CCG	GAA	ACT	CGT	CGT	TCA	ATA	GAA	GTA	CCC	CTG	AAT	GAG					
TTT	TAT	CGA	GGC	CTT	TGA	GCA	GCA	AGT	TAT	CTT	CAT	GGG	GAC	TTA	CTC					
Lys	Ile	Ala	Pro	Glu	Thr	Arg	Arg	Ser	Ile	Glu	Val	Pro	Leu	Asn	Glu>					
920			930			940			950			960								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
AGG	ATT	TGT	CTG	CAA	GTG	GGG	TCC	CAG	TGT	AGC	ACC	AAT	GAG	AGT	GAG					
TCC	TAA	ACA	GAC	GTT	CAC	CCC	AGG	GTC	ACA	TCG	TGG	TTA	CTC	TCA	CTC					
Arg	Ile	Cys	Leu	Gln	Val	Gly	Ser	Gln	Cys	Ser	Thr	Asn	Glu	Ser	Glu>					
970			980			990			1000											
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
AAG	CCT	AGC	ATT	TTG	GTT	GAA	AAA	TGC	ATC	TCA	CCC	CCA	GAA	GGT	GAT					
TTC	GGA	TCG	TAA	AAC	CAA	CTT	TTT	ACG	TAG	AGT	GGG	GGT	CTT	CCA	CTA					
Lys	Pro	Ser	Ile	Leu	Val	Glu	Lys	Cys	Ile	Ser	Pro	Pro	Glu	Gly	Asp>					
1010	1020					1030					1040					1050				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*					
CCT	GAG	TCT	GCT	GTG	ACT	GAG	CTT	CAA	TGC	ATT	TGG	CAC	AAC	CTG	AGC					
GGA	CTC	AGA	CGA	CAC	TGA	CTC	GAA	GTT	ACG	TAA	ACC	GTG	TTG	GAC	TCG					
Pro	Glu	Ser	Ala	Val	Thr	Glu	Leu	Gln	Cys	Ile	Trp	His	Asn	Leu	Ser>					
1060			1070			1080			1090			1100								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
TAC	ATG	AAG	TGT	TCT	TGG	CTC	CCT	GGA	AGG	AAT	ACC	AGT	CCC	GAC	ACT					
ATG	TAC	TTC	ACA	AGA	ACC	GAG	GGA	CCT	TCC	TTA	TGG	TCA	GGG	CTG	TGA					
Tyr	Met	Lys	Cys	Ser	Trp	Leu	Pro	Gly	Arg	Asn	Thr	Ser	Pro	Asp	Thr>					
1110			1120			1130			1140			1150								
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
AAC	TAT	ACT	CTC	TAC	TAT	TGG	CAC	AGA	AGC	CTG	GAA	AAA	ATT	CAT	CAA					
TTG	ATA	TGA	GAG	ATG	ATA	ACC	GTG	TCT	TCG	GAC	CTT	TTT	TAA	GTA	GTT					
Asn	Tyr	Thr	Leu	Tyr	Tyr	Trp	His	Arg	Ser	Leu	Glu	Lys	Ile	His	Gln>					



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Fig.31D.

1160	1170	1180	1190	1200
* * *	* * *	* * *	* * *	* * *
TGT GAA AAC ATC TTT AGA GAA GGC CAA TAC TTT GGT TGT TCC TTT GAT				
ACA CTT TTG TAG AAA TCT CTT CCG GTT ATG AAA CCA ACA AGG AAA CTA				
Cys Glu Asn Ile Phe Arg Glu Gly Gln Tyr Phe Gly Cys Ser Phe Asp>				
1210	1220	1230	1240	
* * *	* * *	* * *	* * *	
CTG ACC AAA GTG AAG GAT TCC AGT TTT GAA CAA CAC AGT GTC CAA ATA				
GAC TGG TTT CAC TTC CTA AGG TCA AAA CTT GTT GTG TCA CAG GTT TAT				
Leu Thr Lys Val Lys Asp Ser Ser Phe Glu Gln His Ser Val Gln Ile>				
1250	1260	1270	1280	1290
* * *	* * *	* * *	* * *	* * *
ATG GTC AAG GAT AAT GCA GGA AAA ATT AAA CCA TCC TTC AAT ATA GTG				
TAC CAG TTC CTA TTA CGT CCT TTT TAA TTT GGT AGG AAG TTA TAT CAC				
Met Val Lys Asp Asn Ala Gly Lys Ile Lys Pro Ser Phe Asn Ile Val>				
1300	1310	1320	1330	1340
* * *	* * *	* * *	* * *	* * *
CCT TTA ACT TCC CGT GTG AAA CCT GAT CCT CCA CAT ATT AAA AAC CTC				
GGA AAT TGA AGG GCA CAC TTT GGA CTA GGA GGT GTA TAA TTT TTG GAG				
Pro Leu Thr Ser Arg Val Lys Pro Asp Pro Pro His Ile Lys Asn Leu>				
1350	1360	1370	1380	1390
* * *	* * *	* * *	* * *	* * *
TCC TTC CAC AAT GAT GAC CTA TAT GTG CAA TGG GAG AAT CCA CAG AAT				
AGG AAG GTG TTA CTA CTG GAT ATA CAC GTT ACC CTC TTA GGT GTC TTA				
Ser Phe His Asn Asp Asp Leu Tyr Val Gln Trp Glu Asn Pro Gln Asn>				
1400	1410	1420	1430	1440
* * *	* * *	* * *	* * *	* * *
TTT ATT AGC AGA TGC CTA TTT TAT GAA GTA GAA GTC AAT AAC AGC CAA				
AAA TAA TCG TCT ACG GAT AAA ATA CTT CAT CTT CAG TTA TTG TCG GTT				
Phe Ile Ser Arg Cys Leu Phe Tyr Glu Val Glu Val Asn Asn Ser Gln>				
1450	1460	1470	1480	
* * *	* * *	* * *	* * *	
ACT GAG ACA CAT AAT GTT TTC TAC GTC CAA GAG GCT AAA TGT GAG AAT				
TGA CTC TGT GTA TTA CAA AAG ATG CAG GTT CTC CGA TTT ACA CTC TTA				
Thr Glu Thr His Asn Val Phe Tyr Val Gln Glu Ala Lys Cys Glu Asn>				
1490	1500	1510	1520	1530
* * *	* * *	* * *	* * *	* * *
CCA GAA TTT GAG AGA AAT GTG GAG AAT ACA TCT TGT TTC ATG GTC CCT				
GGT CTT AAA CTC TCT TTA CAC CTC TTA TGT AGA ACA AAG TAC CAG GGA				
Pro Glu Phe Glu Arg Asn Val Glu Asn Thr Ser Cys Phe Met Val Pro>				



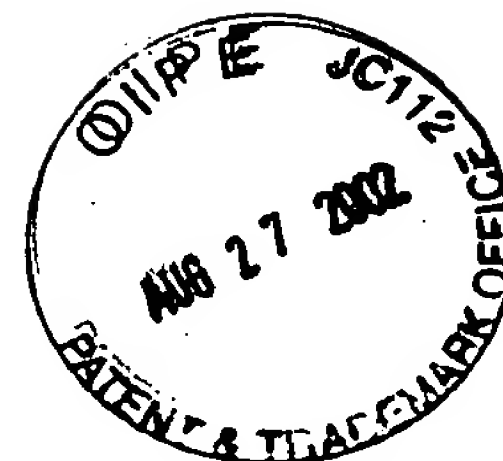
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Fig.31E.

1540	1550	1560	1570	1580
* * *	* * *	* * *	* * *	* * *
GGT GTT CTT CCT GAT ACT TTG AAC ACA GTC AGA ATA AGA GTC AAA ACA				
CCA CAA GAA GGA CTA TGA AAC TTG TGT CAG TCT TAT TCT CAG TTT TGT				
Gly Val Leu Pro Asp Thr Leu Asn Thr Val Arg Ile Arg Val Lys Thr>				
1590	1600	1610	1620	1630
* * *	* * *	* * *	* * *	* * *
AAT AAG TTA TGC TAT GAG GAT GAC AAA CTC TGG AGT AAT TGG AGC CAA				
TTA TTC AAT ACG ATA CTC CTA CTG TTT GAG ACC TCA TTA ACC TCG GTT				
Asn Lys Leu Cys Tyr Glu Asp Asp Lys Leu Trp Ser Asn Trp Ser Gln>				
1640	1650	1660	1670	1680
* * *	* * *	* * *	* * *	* * *
GAA ATG AGT ATA GGT AAG AAG CGC AAT TCC ACA ACC GGA GAC AAA ACT				
CTT TAC TCA TAT CCA TTC TTC GCG TTA AGG TGT TGG CCT CTG TTT TGA				
Glu Met Ser Ile Gly Lys Lys Arg Asn Ser Thr Thr Gly Asp Lys Thr>				
1690	1700	1710	1720	
* * *	* * *	* * *	* * *	
CAC ACA TGC CCA CCG TGC CCA GCA CCT GAA CTC CTG GGG GGA CCG TCA				
GTG TGT ACG GGT GGC ACG GGT CGT GGA CTT GAG GAC CCC CCT GGC AGT				
His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser>				
1730	1740	1750	1760	1770
* * *	* * *	* * *	* * *	* * *
GTC TTC CTC TTC CCC CCA AAA CCC AAG GAC ACC CTC ATG ATC TCC CGG				
CAG AAG GAG AAG GGG GGT TTT GGG TTC CTG TGG GAG TAC TAG AGG GCC				
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg>				
1780	1790	1800	1810	1820
* * *	* * *	* * *	* * *	* * *
ACC CCT GAG GTC ACA TGC GTG GTG GTG GAC GTG AGC CAC GAA GAC CCT				
TGG GGA CTC CAG TGT ACG CAC CAC CAC CTG CAC TCG GTG CTT CTG GGA				
Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro>				
1830	1840	1850	1860	1870
* * *	* * *	* * *	* * *	* * *
GAG GTC AAG TTC AAC TGG TAC GTG GAC GGC GTG GAG GTG CAT AAT GCC				
CTC CAG TTC AAG TTG ACC ATG CAC CTG CCG CAC CTC CAC GTA TTA CGG				
Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala>				
1880	1890	1900	1910	1920
* * *	* * *	* * *	* * *	* * *
AAG ACA AAG CCG CGG GAG GAG CAG TAC AAC AGC ACG TAC CGT GTG GTC				
TTC TGT TTC GGC GCC CTC CTC GTC ATG TTG TCG TGC ATG GCA CAC CAG				
Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val>				

Fig.31 F.

1930				1940				1950				1960							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*				
AGC	GTC	CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC				
TCG	CAG	GAG	TGG	CAG	GAC	GTG	GTC	CTG	ACC	GAC	TTA	CCG	TTC	CTC	ATG				
Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr>				
1970				1980				1990				2000				2010			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
AAG	TGC	AAG	GTC	TCC	AAC	AAA	GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC				
TTC	ACG	TTC	CAG	AGG	TTG	TTT	CGG	GAG	GGT	CGG	GGG	TAG	CTC	TTT	TGG				
Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr>				
2020				2030				2040				2050				2060			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA	CCA	CAG	GTG	TAC	ACC	CTG				
TAG	AGG	TTT	CGG	TTT	CCC	GTC	GGG	GCT	CTT	GGT	GTC	CAC	ATG	TGG	GAC				
Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu>				
2070				2080				2090				2100				2110			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
CCC	CCA	TCC	CGG	GAG	GAG	ATG	ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC	TGC				
GGG	GGT	AGG	GCC	CTC	CTC	TAC	TGG	TTC	TTG	GTC	CAG	TCG	GAC	TGG	ACG				
Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys>				
2120				2130				2140				2150				2160			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
CTG	GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC				
GAC	CAG	TTT	CCG	AAG	ATA	GGG	TCG	CTG	TAG	CGG	CAC	CTC	ACC	CTC	TCG				
Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser>				
2170				2180				2190				2200							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
AAT	GGG	CAG	CCG	GAG	AAC	AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC				
TTA	CCC	GTC	GGC	CTC	TTG	TTG	ATG	TTC	TGG	TGC	GGA	GGG	CAC	GAC	CTG				
Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp>				
2210				2220				2230				2240				2250			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAT	AGC	AAG	CTC	ACC	GTG	GAC	AAG	AGC				
AGG	CTG	CCG	AGG	AAG	AAG	GAG	ATA	TCG	TTC	GAG	TGG	CAC	CTG	TTC	TCG				
Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser>				
2260				2270				2280				2290				2300			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT	GAG	GCT				
TCC	ACC	GTC	GTC	CCC	TTG	CAG	AAG	AGT	ACG	AGG	CAC	TAC	GTA	CTC	CGA				
Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met</							



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Fig.31G.

2310			2320			2330			2340			2350			
*	*		*			*			*	*		*		*	
CTG	CAC	AAC	CAC	TAC	ACG	CAG	AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA
GAC	GTG	TTG	GTG	ATG	TGC	GTC	TTC	TCG	GAG	AGG	GAC	AGA	GGC	CCA	TTT
Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys>
*															
TGA															
ACT															
***>															



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Fig.32A.

			10				20				30				40			
	*		*		*		*		*		*		*		*		*	
ATG	GTG	TGG	CCG	GCG	CGG	CTC	TGC	GGG	CTG	TGG	GCG	CTG	CTG	CTC	TGC			
TAC	CAC	ACC	GGC	CGC	GCC	GAG	ACG	CCC	GAC	ACC	CGC	GAC	GAC	GAG	ACG			
Met	Val	Trp	Pro	Ala	Arg	Leu	Cys	Gly	Leu	Trp	Ala	Leu	Leu	Leu	Cys>			
50				60				70				80			90			
*		*		*		*		*		*		*		*		*		
GCC	GGC	GGC	GGG	GGC	GGG	GGC	GGG	GGC	GCC	GCG	CCT	ACG	GAA	ACT	CAG			
CGG	CCG	CCG	CCC	CCG	CCC	CCG	CCC	CCG	CGG	CGC	GGA	TGC	CTT	TGA	GTC			
Ala	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ala	Ala	Pro	Thr	Glu	Thr	Gln>		
100				110				120				130			140			
*		*		*		*		*		*		*		*		*		
CCA	CCT	GTG	ACA	AAT	TTG	AGT	GTC	TCT	GTT	GAA	AAC	CTC	TGC	ACA	GTA			
GGT	GGA	CAC	TGT	TTA	AAC	TCA	CAG	AGA	CAA	CTT	TTG	GAG	ACG	TGT	CAT			
Pro	Pro	Val	Thr	Asn	Leu	Ser	Val	Ser	Val	Glu	Asn	Leu	Cys	Thr	Val>			
150				160				170				180			190			
*		*		*		*		*		*		*		*		*		
ATA	TGG	ACA	TGG	AAT	CCA	CCC	GAG	GGA	GCC	AGC	TCA	AAT	TGT	AGT	CTA			
TAT	ACC	TGT	ACC	TTA	GGT	GGG	CTC	CCT	CGG	TCG	AGT	TTA	ACA	TCA	GAT			
Ile	Trp	Thr	Trp	Asn	Pro	Pro	Glu	Gly	Ala	Ser	Ser	Asn	Cys	Ser	Leu>			
200				210				220				230			240			
*		*		*		*		*		*		*		*		*		
TGG	TAT	TTT	AGT	CAT	TTT	GGC	GAC	AAA	CAA	GAT	AAG	AAA	ATA	GCT	CCG			
ACC	ATA	AAA	TCA	GTA	AAA	CCG	CTG	TTT	GTT	CTA	TTC	TTT	TAT	CGA	GGC			
Trp	Tyr	Phe	Ser	His	Phe	Gly	Asp	Lys	Gln	Asp	Lys	Lys	Ile	Ala	Pro>			
250				260				270				280						
*		*		*		*		*		*		*		*		*		
GAA	ACT	CGT	CGT	TCA	ATA	GAA	GTA	CCC	CTG	AAT	GAG	AGG	ATT	TGT	CTG			
CTT	TGA	GCA	GCA	AGT	TAT	CTT	CAT	GGG	GAC	TTA	CTC	TCC	TAA	ACA	GAC			
Glu	Thr	Arg	Arg	Ser	Ile	Glu	Val	Pro	Leu	Asn	Glu	Arg	Ile	Cys	Leu>			
290				300				310				320			330			
*		*		*		*		*		*		*		*		*		
CAA	GTG	GGG	TCC	CAG	TGT	AGC	ACC	AAT	GAG	AGT	GAG	AAG	CCT	AGC	ATT			
GTT	CAC	CCC	AGG	GTC	ACA	TCG	TGG	TTA	CTC	TCA	CTC	TTC	GGA	TCG	TAA			
Gln	Val	Gly	Ser	Gln	Cys	Ser	Thr	Asn	Glu	Ser	Glu	Lys	Pro	Ser	Ile>			
340				350				360				370			380			
*		*		*		*		*		*		*		*		*		
TTG	GTT	GAA	AAA	TGC	ATC	TCA	CCC	CCA	GAA	GGT	GAT	CCT	GAG	TCT	GCT			
AAC	CAA	CTT	TTT	ACG	TAG	AGT	GGG	GGT	CTT	CCA	CTA	GGA	CTC	AGA	CGA			
Leu	Val	Glu	Lys	Cys	Ile	Ser	Pro	Pro	Glu	Gly	Asp	Pro	Glu	Ser	Ala>			



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Fig.32B.

390	400	410	420	430
* * *	* *	* *	* *	* *
GTG ACT GAG CTT CAA TGC ATT TGG CAC AAC CTG AGC TAC ATG AAG TGT				
CAC TGA CTC GAA GTT ACG TAA ACC GTG TTG GAC TCG ATG TAC TTC ACA				
Val Thr Glu Leu Gln Cys Ile Trp His Asn Leu Ser Tyr Met Lys Cys>				
440	450	460	470	480
* *	* *	* *	* *	* *
TCT TGG CTC CCT GGA AGG AAT ACC AGT CCC GAC ACT AAC TAT ACT CTC				
AGA ACC GAG GGA CCT TCC TTA TGG TCA GGG CTG TGA TTG ATA TGA GAG				
Ser Trp Leu Pro Gly Arg Asn Thr Ser Pro Asp Thr Asn Tyr Thr Leu>				
490	500	510	520	
* *	* *	* *	* *	
TAC TAT TGG CAC AGA AGC CTG GAA AAA ATT CAT CAA TGT GAA AAC ATC				
ATG ATA ACC GTG TCT TCG GAC CTT TTT TAA GTA GTT ACA CTT TTG TAG				
Tyr Tyr Trp His Arg Ser Leu Glu Lys Ile His Gln Cys Glu Asn Ile>				
530	540	550	560	570
* *	* *	* *	* *	* *
TTT AGA GAA GGC CAA TAC TTT GGT TGT TCC TTT GAT CTG ACC AAA GTG				
AAA TCT CTT CCG GTT ATG AAA CCA ACA AGG AAA CTA GAC TGG TTT CAC				
Phe Arg Glu Gly Gln Tyr Phe Gly Cys Ser Phe Asp Leu Thr Lys Val>				
580	590	600	610	620
* *	* *	* *	* *	* *
AAG GAT TCC AGT TTT GAA CAA CAC AGT GTC CAA ATA ATG GTC AAG GAT				
TTC CTA AGG TCA AAA CTT GTT GTG TCA CAG GTT TAT TAC CAG TTC CTA				
Lys Asp Ser Ser Phe Glu Gln His Ser Val Gln Ile Met Val Lys Asp>				
630	640	650	660	670
* *	* *	* *	* *	* *
AAT GCA GGA AAA ATT AAA CCA TCC TTC AAT ATA GTG CCT TTA ACT TCC				
TTA CGT CCT TTT TAA TTT GGT AGG AAG TTA TAT CAC GGA AAT TGA AGG				
Asn Ala Gly Lys Ile Lys Pro Ser Phe Asn Ile Val Pro Leu Thr Ser>				
680	690	700	710	720
* *	* *	* *	* *	* *
CGT GTG AAA CCT GAT CCT CCA CAT ATT AAA AAC CTC TCC TTC CAC AAT				
GCA CAC TTT GGA CTA GGA GGT GTA TAA TTT TTG GAG AGG AAG GTG TTA				
Arg Val Lys Pro Asp Pro Pro His Ile Lys Asn Leu Ser Phe His Asn>				
730	740	750	760	
* *	* *	* *	* *	
GAT GAC CTA TAT GTG CAA TGG GAG AAT CCA CAG AAT TTT ATT AGC AGA				
CTA CTG GAT ATA CAC GTT ACC CTC TTA GGT GTC TTA AAA TAA TCG TCT				
Asp Asp Leu Tyr Val Gln Trp Glu Asn Pro Gln Asn Phe Ile Ser Arg>				



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Fig.32C.

770		780		790		800		810							
*	*	*	*	*	*	*	*	*	*						
TGC	CTA	TTT	TAT	GAA	GTA	GAA	GTC	AAT	AAC	AGC	CAA	ACT	GAG	ACA	CAT
ACG	GAT	AAA	ATA	CTT	CAT	CTT	CAG	TTA	TTG	TCG	GTT	TGA	CTC	TGT	GTA
Cys	Leu	Phe	Tyr	Glu	Val	Glu	Val	Asn	Asn	Ser	Gln	Thr	Glu	Thr	His>
820		830		840		850		860							
*	*	*	*	*	*	*	*	*	*						
AAT	GTT	TTC	TAC	GTC	CAA	GAG	GCT	AAA	TGT	GAG	AAT	CCA	GAA	TTT	GAG
TTA	CAA	AAG	ATG	CAG	GTT	CTC	CGA	TTT	ACA	CTC	TTA	GGT	CTT	AAA	CTC
Asn	Val	Phe	Tyr	Val	Gln	Glu	Ala	Lys	Cys	Glu	Asn	Pro	Glu	Phe	Glu>
870		880		890		900		910							
*	*	*	*	*	*	*	*	*	*						
AGA	AAT	GTG	GAG	AAT	ACA	TCT	TGT	TTC	ATG	GTC	CCT	GGT	GTT	CTT	CCT
TCT	TTA	CAC	CTC	TTA	TGT	AGA	ACA	AAG	TAC	CAG	GGA	CCA	CAA	GAA	GGA
Arg	Asn	Val	Glu	Asn	Thr	Ser	Cys	Phe	Met	Val	Pro	Gly	Val	Leu	Pro>
920		930		940		950		960							
*	*	*	*	*	*	*	*	*	*						
GAT	ACT	TTG	AAC	ACA	GTC	AGA	ATA	AGA	GTC	AAA	ACA	AAT	AAG	TTA	TGC
CTA	TGA	AAC	TTG	TGT	CAG	TCT	TAT	TCT	CAG	TTT	TGT	TTA	TTC	AAT	ACG
Asp	Thr	Leu	Asn	Thr	Val	Arg	Ile	Arg	Val	Lys	Thr	Asn	Lys	Leu	Cys>
970		980		990		1000									
*	*	*	*	*	*	*	*	*	*						
TAT	GAG	GAT	GAC	AAA	CTC	TGG	AGT	AAT	TGG	AGC	CAA	GAA	ATG	AGT	ATA
ATA	CTC	CTA	CTG	TTT	GAG	ACC	TCA	TTA	ACC	TCG	GTT	CTT	TAC	TCA	TAT
Tyr	Glu	Asp	Asp	Lys	Leu	Trp	Ser	Asn	Trp	Ser	Gln	Glu	Met	Ser	Ile>
1010		1020		1030		1040		1050							
*	*	*	*	*	*	*	*	*	*						
GGT	AAG	AAG	CGC	AAT	TCC	ACA	GGC	GCG	CCT	AGT	GGT	GGA	GGT	GGC	CGG
CCA	TTC	TTC	GCG	TTA	AGG	TGT	CCG	CGC	GGA	TCA	CCA	CCT	CCA	CCG	GCC
Gly	Lys	Lys	Arg	Asn	Ser	Thr	Gly	Ala	Pro	Ser	Gly	Gly	Gly	Gly	Arg>
1060		1070		1080		1090		1100							
*	*	*	*	*	*	*	*	*	*						
CCC	GCA	AGC	TCT	GGG	AAC	ATG	AAG	GTC	TTG	CAG	GAG	CCC	ACC	TGC	GTC
GGG	CGT	TCG	AGA	CCC	TTG	TAC	TTC	CAG	AAC	GTC	CTC	GGG	TGG	ACG	CAG
Pro	Ala	Ser	Ser	Gly	Asn	Met	Lys	Val	Leu	Gln	Glu	Pro	Thr	Cys	Val>
1110		1120		1130		1140		1150							
*	*	*	*	*	*	*	*	*	*						
TCC	GAC	TAC	ATG	AGC	ATC	TCT	ACT	TGC	GAG	TGG	AAG	ATG	AAT	GGT	CCC
AGG	CTG	ATG	TAC	TCG	TAG	AGA	TGA	ACG	CTC	ACC	TTC	TAC	TTA	CCA	GGG
Ser	Asp	Tyr	Met	Ser	Ile	Ser	Thr	Cys	Glu	Trp	Lys	Met	Asn	Gly	Pro>



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Fig.32D.

1160				1170				1180				1190				1200			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
ACC	AAT	TGC	AGC	ACC	GAG	CTC	CGC	CTG	TTG	TAC	CAG	CTG	GTT	TTT	CTG				
TGG	TTA	ACG	TCG	TGG	CTC	GAG	GCG	GAC	AAC	ATG	GTC	GAC	CAA	AAA	GAC				
Thr	Asn	Cys	Ser	Thr	Glu	Leu	Arg	Leu	Leu	Tyr	Gln	Leu	Val	Phe	Leu>				
1210				1220				1230				1240							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
CTC	TCC	GAA	GCC	CAC	ACG	TGT	ATC	CCT	GAG	AAC	AAC	GGA	GGC	GCG	GGG				
GAG	AGG	CTT	CGG	GTG	TGC	ACA	TAG	GGA	CTC	TTG	TTG	CCT	CCG	CGC	CCC				
Leu	Ser	Glu	Ala	His	Thr	Cys	Ile	Pro	Glu	Asn	Asn	Gly	Gly	Ala	Gly>				
1250	1260				1270				1280				1290						
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
TGC	GTG	TGC	CAC	CTG	CTC	ATG	GAT	GAC	GTG	GTC	AGT	GCG	GAT	AAC	TAT				
ACG	CAC	ACG	GTG	GAC	GAG	TAC	CTA	CTG	CAC	CAG	TCA	CGC	CTA	TTG	ATA				
Cys	Val	Cys	His	Leu	Leu	Met	Asp	Asp	Val	Val	Ser	Ala	Asp	Asn	Tyr>				
1300				1310				1320				1330				1340			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
ACA	CTG	GAC	CTG	TGG	GCT	GGG	CAG	CAG	CTG	CTG	TGG	AAG	GGC	TCC	TTC				
TGT	GAC	CTG	GAC	ACC	CGA	CCC	GTC	GTC	GAC	GAC	ACC	TTC	CCG	AGG	AAG				
Thr	Leu	Asp	Leu	Trp	Ala	Gly	Gln	Gln	Leu	Leu	Trp	Lys	Gly	Ser	Phe>				
1350				1360				1370				1380				1390			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
AAG	CCC	AGC	GAG	CAT	GTG	AAA	CCC	AGG	GCC	CCA	GGA	AAC	CTG	ACA	GTT				
TTC	GGG	TCG	CTC	GTA	CAC	TTT	GGG	TCC	CGG	GGT	CCT	TTG	GAC	TGT	CAA				
Lys	Pro	Ser	Glu	His	Val	Lys	Pro	Arg	Ala	Pro	Gly	Asn	Leu	Thr	Val>				
1400				1410				1420				1430				1440			
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
CAC	ACC	AAT	GTC	TCC	GAC	ACT	CTG	CTG	CTG	ACC	TGG	AGC	AAC	CCG	TAT				
GTG	TGG	TTA	CAG	AGG	CTG	TGA	GAC	GAC	GAC	TGG	ACC	TCG	TTG	GGC	ATA				
His	Thr	Asn	Val	Ser	Asp	Thr	Leu	Leu	Leu	Thr	Trp	Ser	Asn	Pro	Tyr>				
1450				1460				1470				1480							
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
CCC	CCT	GAC	AAT	TAC	CTG	TAT	AAT	CAT	CTC	ACC	TAT	GCA	GTC	AAC	ATT				
GGG	GGA	CTG	TTA	ATG	GAC	ATA	TTA	GTA	GAG	TGG	ATA	CGT	CAG	TTG	TAA				
Pro	Pro	Asp	Asn	Tyr	Leu	Tyr	Asn	His	Leu	Thr	Tyr	Ala	Val	Asn	Ile>				
1490	1500				1510				1520				1530						
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
TGG	AGT	GAA	AAC	GAC	CCG	GCA	GAT	TTC	AGA	ATC	TAT	AAC	GTG	ACC	TAC				
ACC	TCA	CTT	TTG	CTG	GGC	CGT	CTA	AAG	TCT	TAG	ATA	TTG	CAC	TGG	ATG				
Trp	Ser	Glu	Asn	Asp	Pro	Ala	Asp	Phe	Arg	Ile	Tyr	Asn	Val	Thr	Tyr>				



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Fig.32E.

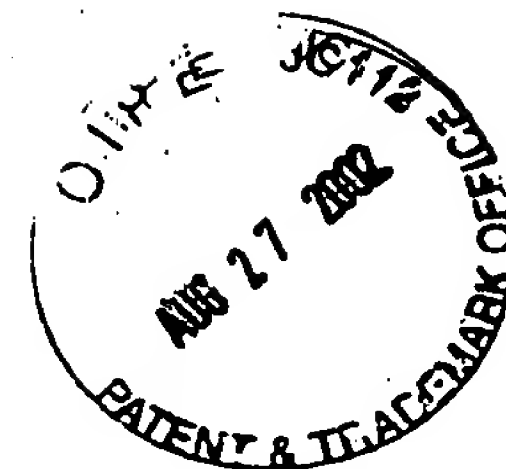
1540	1550	1560	1570	1580
* * *	* * *	* * *	* * *	* * *
CTA GAA CCC TCC CTC CGC ATC GCA GCC AGC ACC CTG AAG TCT GGG ATT				
GAT CTT GGG AGG GAG GCG TAG CGT CGG TCG TGG GAC TTC AGA CCC TAA				
Leu Glu Pro Ser Leu Arg Ile Ala Ala Ser Thr Leu Lys Ser Gly Ile>				
1590	1600	1610	1620	1630
* * *	* * *	* * *	* * *	* * *
TCC TAC AGG GCA CGG GTG AGG GCC TGG GCT CAG TGC TAT AAC ACC ACC				
AGG ATG TCC CGT GCC CAC TCC CGG ACC CGA GTC ACG ATA TTG TGG TGG				
Ser Tyr Arg Ala Arg Val Arg Ala Trp Ala Gln Cys Tyr Asn Thr Thr>				
1640	1650	1660	1670	1680
* * *	* * *	* * *	* * *	* * *
TGG AGT GAG TGG AGC CCC AGC ACC AAG TGG CAC AAC TCC TAC AGG GAG				
ACC TCA CTC ACC TCG GGG TCG TGG TTC ACC GTG TTG AGG ATG TCC CTC				
Trp Ser Glu Trp Ser Pro Ser Thr Lys Trp His Asn Ser Tyr Arg Glu>				
1690	1700	1710	1720	
* * *	* * *	* * *	* * *	
CCC TTC GAG CAG TCC GGA GAC AAA ACT CAC ACA TGC CCA CCG TGC CCA				
GGG AAG CTC GTC AGG CCT CTG TTT TGA GTG TGT ACG GGT GGC ACG GGT				
Pro Phe Glu Gln Ser Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro>				
1730	1740	1750	1760	1770
* * *	* * *	* * *	* * *	* * *
GCA CCT GAA CTC CTG GGG GGA CCG TCA GTC TTC CTC TTC CCC CCA AAA				
CGT GGA CTT GAG GAC CCC CCT GGC AGT CAG AAG GAG AAG GGG GGT TTT				
Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys>				
1780	1790	1800	1810	1820
* * *	* * *	* * *	* * *	* * *
CCC AAG GAC ACC CTC ATG ATC TCC CGG ACC CCT GAG GTC ACA TGC GTG				
GGG TTC CTG TGG GAG TAC TAG AGG GCC TGG GGA CTC CAG TGT ACG CAC				
Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val>				
1830	1840	1850	1860	1870
* * *	* * *	* * *	* * *	* * *
GTG GTG GAC GTG AGC CAC GAA GAC CCT GAG GTC AAG TTC AAC TGG TAC				
CAC CAC CTG CAC TCG GTG CTT CTG GGA CTC CAG TTC AAG TTG ACC ATG				
Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr>				
1880	1890	1900	1910	1920
* * *	* * *	* * *	* * *	* * *
GTG GAC GGC GTG GAG GTG CAT AAT GCC AAG ACA AAG CCG CGG GAG GAG				
CAC CTG CCG CAC CTC CAC GTA TTA CGG TTC TGT TTC GGC GCC CTC CTC				
Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu>				



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Fig.32F.

1930					1940					1950					1960									
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
CAG	TAC	AAC	AGC	ACG	TAC	CGT	GTG	GTC	AGC	GTC	CTC	ACC	GTC	CTG	CAC									
GTC	ATG	TTG	TCG	TGC	ATG	GCA	CAC	CAG	TCG	CAG	GAG	TGG	CAG	GAC	GTG									
Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His>									
1970					1980					1990					2000					2010				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC	AAC	AAA									
GTC	CTG	ACC	GAC	TTA	CCG	TTC	CTC	ATG	TTC	ACG	TTC	CAG	AGG	TTG	TTT									
Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys>									
2020					2030					2040					2050					2060				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG									
CGG	GAG	GGT	CGG	GGG	TAG	CTC	TTT	TGG	TAG	AGG	TTT	CGG	TTT	CCC	GTC									
Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln>									
2070					2080					2090					2100					2110				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
CCC	CGA	GAA	CCA	CAG	GTG	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAG	GAG	ATG									
GGG	GCT	CTT	GGT	GTC	CAC	ATG	TGG	GAC	GGG	GGT	AGG	GCC	CTC	CTC	TAC									
Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met>									
2120					2130					2140					2150					2160				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC	TGC	CTG	GTC	AAA	GGC	TTC	TAT	CCC									
TGG	TTC	TTG	GTC	CAG	TCG	GAC	TGG	ACG	GAC	CAG	TTT	CCG	AAG	ATA	GGG									
Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro>									
2170					2180					2190					2200									
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG	CAG	CCG	GAG	AAC	AAC									
TCG	CTG	TAG	CGG	CAC	CTC	ACC	CTC	TCG	TTA	CCC	GTC	GGC	CTC	TTG	TTG									
Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn>									
2210					2220					2230					2240					2250				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC									
ATG	TTC	TGG	TGC	GGA	GGG	CAC	GAC	CTG	AGG	CTG	CCG	AGG	AAG	AAG	GAG									
Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu>									
2260					2270					2280					2290					2300				
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*									
TAT	AGC	AAG	CTC	ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC									
ATA	TCG	TTC	GAG	TGG	CAC	CTG	TTC	TCG	TCC	ACC	GTC	GTC	CCC	TTG	CAG									
Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val>									



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Fig.32G.

2310			2320			2330			2340			2350			
*	*	*	*	*	*	*	*	*	*	*	*	*	*		
TTC	TCA	TGC	TCC	GTG	ATG	CAT	GAG	GCT	CTG	CAC	AAC	CAC	TAC	ACG	CAG
AAG	AGT	ACG	AGG	CAC	TAC	GTA	CTC	CGA	GAC	GTG	TTG	GTG	ATG	TGC	GTC
Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln>

2360			2370			2380			
*	*	*	*	*	*	*	*	*	
AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA
TTC	TCG	GAG	AGG	GAC	AGA	GGC	CCA	TTT	ACT
Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys	***>